



**PHD**

**The role of management accounting and accountants in selected Sudanese public and private enterprises**

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THE ROLE OF MANAGEMENT ACCOUNTING  
AND ACCOUNTANTS IN SELECTED  
SUDANESE PUBLIC AND PRIVATE  
ENTERPRISES

submitted by El-Khidir Ali MUSA, B.Sc. (Honours),  
for the degree of Ph.D. of the University of Bath  
1987

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## Dedication

This thesis is dedicated to the memory of my father, to my mother and my family, and to my beloved country.

(i)

Acknowledgements

I wish to acknowledge the genuine contribution of my supervisors Professor C.R. Tomkins, Dr. G.H. Ray and Dr. R.A.A. Karim. They have encouraged my research with helpful comments and constructive criticism and have always endeavoured to improve the quality of my work.

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El-Khidir Ali Musa

ABSTRACT

This thesis researched the role of management accounting and accountants in selected Sudanese public and private enterprises. This empirical investigation is an attempt to contribute to studies of the role of accounting and accountants in management in developing countries.

The first part of the thesis develops the research problem, hypotheses and methodology. Chapter 1 of the thesis emphasizes the potential role of accounting and accountants in accelerating economic development in the developing countries, reviews the state of the art of the role of management accounting and accountants in developing countries and identifies the urgent need for the use of the research case study approach in management accounting research in developing countries. Chapters 2 and 3 contain two research case studies. Chapter 4 analyses these two research case studies and defines the research problem and develops the research hypotheses from these cases. Chapter 5 designs the research methodology necessary to investigate the research problem and test the research hypotheses in the second stage.

The second part of the thesis describes in detail the level of sophistication of management accounting techniques and the role of the controllership function in internal reporting in both public and private enterprises. The major finding of this part is that the role of management accounting and accountants is, in general, poorly developed in public enterprises but rather better developed in private enterprises (Chapters 6 and 7).

The third part of the thesis investigates the reasons for the different roles of management accounting and

accountants in public and private enterprises as reported in the second part of the thesis. Accordingly, this difference is attributed to the different degrees of government control over public and private enterprises (Chapter 8), the different organizational goals pursued by public and private enterprises (Chapter 9), the different organizational structures in public and private enterprises (Chapter 9) and the organization history of some public and private enterprises (Chapter 9). The hypothesized impact of several managerial factors on the different roles of management accounting and accountants in public and private enterprises has not been confirmed (Chapter 10).

Finally, the fourth part of the thesis brings this study to a conclusion. Chapter 11 presents a brief summary of and a general look at the major research findings in the context of the developing countries' study of management accounting and their implications for our state of knowledge and the future research in developing countries. Also, this chapter puts forward the policy implications of the research findings for the Sudan Government with a view to improving the sophistication of management accounting systems and controllership functions in public and private enterprises as a means of achieving the objectives of economic development in the country at the micro (enterprise) level.

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PART ONE : DEVELOPMENT OF THE RESEARCH PROBLEM, HYPOTHESES,  
AND METHODOLOGY.



## Chapter (1)

### Introduction

This chapter is an introductory one. The chapter starts by discussing the potential role that accounting and accountants could provide to help accelerate the economic development in developing countries. The chapter then discusses the current state of the art of the role of management accounting and accountants in the management of enterprises in the developing world. Finally, the chapter concludes the discussion by identifying the urgent need for the use of research case studies in management accounting research in a developing country.

#### 1.1 The Potential Role of Accounting and Accountants in The Economic Development of The Developing Countries

Accounting, as a basic tool of collection and communication of economic data, has an enormous potential for the economic development for which the less developed countries are in desperate need. Thus accounting and accountants could play a vital role in the economic development of the less developed nations, both at the macro and micro levels. At the macro level, the national accounting and accountants could provide the government with the economic data on the performance of the different sectors of the economy. This in turn could help the government to draw its own economic and social development plans, its own fiscal and monetary policies, in addition to various other decisions. It would seem that accounting and accountants are a prerequisite to economic development. This is particularly true as most of the developing countries are in favour of central planning. Enthoven (1965), referring to this potential, argues that:

"It seems desirable to evaluate the relationship which exists between the economic development and accountancy in its widest sense, and the impact that the accounting approach can have in accelerating the economic development which the less developed nations so urgently require".

Similarly, Seiler (1966) states that:

"The strength and extent of a nation's information system determines

in large part the rate at which economic development will progress, and that accounting and accounting systems thus assume an important role in the development of the emerging nations".

Linowes (1969), on the other hand, seems to put much more emphasis on the role of accounting and accountants in the developing countries for central planning purposes.

"Whereas in a well developed economy such as ours, the determination of priorities in the use of resources can be left largely to the competitive processes of the market place, a nation seeking rapid development tends to rely on centralized national planning for allocation of basic resources to achieve stated national objectives".

At the micro level accounting and accountants have even better chances to help the managements of the individual enterprises use resources as efficiently and effectively as possible. The obvious reason for this is that efficient management needs accurate and up-to-date data on the company financial status, results, operations and managerial decisions. Referring to this point, Enthoven (1965) argues that:

"A good cost accounting can give management a clear classification of costs, identify non-operating costs, and appraise the efficiency of the organization's departments and subunits. Knowledge of the efficiency of each industry, division or department, is required for the allocation of scarce funds and resources to those segments which have priority importance for the enterprise and the whole economy".

Thus, the need for the role of accounting and accountants in the enterprises of developing countries seems to be inevitable as these countries are striving to achieve rapid economic development through industrialization and the transfer of the latest advanced Western technology. Negandhi (1968) states that:

"With respect to technology, many industrially developed countries, such as US, UK,... have earnestly tried to assist underdeveloped countries. Even though the problem of technical know-how has not been completely solved, very worthwhile progress has been made in this direction".

The Report of the Centre for Development Planning confirms the same trend of industrialization in the developing countries as the solution

for poverty.

"That most of the economically advanced nations of the contemporary world scene reached their high standards of living through successful thrusts of industrialization - and are in fact often called industrialized countries - is accepted and cited as a demonstration of the path that the developing countries need to travel".

Evidently, therefore, the objectives of industrialization and economic development in the developing countries could not be achieved without advancing the managerial and technical know-how through emphasizing the potential that accounting and accountants could provide to secure the achievement of the objectives. Needless to say, industrialization by itself does not guarantee the expected economic development in the less developed countries. Not only that, but the transfer of advanced Western technology could be disastrous and counterproductive if a developing nation failed to transfer the corresponding managerial know-how, and appreciate the role of accounting and accountants to manage this sophisticated technology. This fact has long been asserted by many writers. Enthoven (1965), for instance, states that:

"It is often incorrectly assumed that industrialization along Western lines, preferably with the latest technique, is the road towards economic development".

Similarly, Bevis (1958) makes it clear that:

"A high degree of industrialization and the attendant economic progress cannot be developed without a highly developed accounting function which makes possible the flow of indispensable economic data".

By the same token, Ross (1967) maintains that:

"One cannot place a modern complex organization in the midst of a preliminary country and expect it to blossom".

## 1.2 The State of The Art of The Role of Management Accounting and Accountants in The Developing Countries

Having said that, we now turn to discuss the actual role played

by the management accounting and accountants in the management of the enterprises of the developing countries.

During the sixties and the early seventies, the accounting literature on the developing countries was dominated by the descriptive work of some writers who used to work in some of these developing countries as accountants in foreign companies, accounting advisers to the governments of these developing countries, or as part of a United Nations technical mission to the less developed countries. In this sense, this descriptive work is no more than first hand impressions or observations rather than rigorous empirical accounting research. The pioneers in this category include Bevis, 1958, Engleman, 1962, Enthoven, 1965, Seiler, 1966, Ross, 1967, Negandhi, 1968, Linowes, 1969, Jaggi, 1973, Dorian, 1974, and many others. The characteristic feature of all these writings is that they conclude that the role of accounting and accountants in the enterprises of the developing countries is almost non existent. The following statements are typical of many.

- Enthoven (1973):

"Usually in underdeveloped countries the vital management tool of accounting, including cost accounting is little developed. The cost conscious manager cannot control costs unless he knows what they are. Firms are reluctant to install and use effective cost accounting systems. The value of cost accounting as a tool for pricing policy, operating, income and performance measurement, product and cost control, budgeting, internal organization and productivity is rarely adequately understood".

- Engleman (1962):

"As a result of the predominantly cash approach to accounting, its role as a tool for management and planning is almost unknown in the developing countries. Many businessmen hardly understood this particular aspect of accounting, with which they have had almost no experience".

- Seiler (1966):

"In a number of the less developed countries, information systems which provide reliable financial data are few in number, and the group of managers equipped to utilize even the existing data is small".

- Jaggi (1973):

"Accounting in most developing countries is still in an embryonic stage".

During the late seventies and the early eighties, more attention was directed towards empirical accounting research in the developing countries. Nevertheless, the bulk of the empirical accounting research was devoted to the investigation of the professional and financial accounting practices. A literature survey by Parker (1984), for instance, suggests that most of the empirical work in the developing countries during the nineteen seventies concentrated on the financial accounting systems and practices. Very few studies are devoted to the investigation of the role of management accounting and accountants at the micro-level, that is, within the enterprises of the developing countries. Kordi (1979), for instance, investigated the role of accounting and accountants in some selected Saudi industries. He concludes that the role of accountants in providing useful accounting data to management is very low, and that the application of some cost accounting techniques is very poor. Similar conclusions are reached by Savage (1967), who investigated the use of accounting data in some Mexican manufacturing industries. Furthermore, two recent investigations were conducted at Bath University by Saleem (1981) and Rikabi (1984). The following is a brief summary of these two studies.

#### 1.2.1 The Saleem (1981) Study

Saleem (1981) investigated the effectiveness of the controllership function in providing useful accounting information to the management of the Iraqi cement factories. To measure the controller's effectiveness, Saleem used the following five criteria which have a relationship to the degree of centralization of the controller functions:

- The structure of accounts and reports,
- The actual geographical locations of the accountant,
- The formal authority relations,
- Group loyalties, and
- Channels of communication.

The study concluded that the role of the controllership function in providing useful accounting data to managers is ineffective. Consequently, only top managers are found to have received accounting information and this is simply typical of the reports sent to the central government controlling bodies. This in turn has reduced the managers' uses of accounting data to score-card purposes only. Saleem then attributed the controller's ineffectiveness and the low use of accounting data to the following reasons:

- 1 - The centralization of authority to make decisions by the supervising government bodies,
- 2 - The domination of technicians and engineers and the lack of appropriate training at the top management positions and the fact that they are not motivated to use accounting data,
- 3 - The managers' preference and reliance on the informal contacts as a source of information, and
- 4 - The acute shortage of the qualified accountants.

#### 1.2.2 The Rikabi (1984) Study

This study investigated the application of the cost accounting techniques and the role of controllers in the management of the Sudanese public and private textile companies. Though the study confirmed the conclusions and observations of the previous descriptive and empirical accounting studies in the developing countries, the study had identified

many instances in which the level of sophistication of management accounting techniques and the role of controllers are different among the organizations. Thus, unlike the previous studies, Rikabi's study pinpoints some differences in the role of accounting and accountants in the management of organizations within developing countries. He argues that:

"In general, these findings seem to confirm the arguments and the observations of those who wrote about the sophistication of accounting systems in developing countries, that generally speaking, the level of sophistication of management accounting techniques (budgeting and cost accounting) used in developing countries is very low. But these findings also provide a warning against overgeneralization, because as mentioned above, some companies have got sophisticated budgeting and cost accounting systems using the Western standards".

The study attributed the differences in the role of management accounting and accountants in the textile companies to the differences in the following factors:

- 1 - Personal and Managerial Factors. These basically include the managers' style, the managers' financial ability, and the managers' expectations regarding the accounting and accountants' influence in the management of the organization.
- 2 - Organizational Factors. Which are mainly the organization's size, structure and history.
- 3 - Characteristics of the Accounting Function. These incorporate various aspects of the Accounting Departments of these organizations, such as the percentage of time spent on the different accounting activities and the percentage of the qualified accountants to the overall company employees.
- 4 - Environmental Factors. According to the conclusions of the study, the impact of the environmental factors could be traced to the managers' attitudes towards the external control of their organizations

as a result of the government control over the major supply sources and the existence of the sellers' market.

This brief review of the current literature on the role of management accounting and accountants in the emerging nations tends to suggest that:

- 1 - The role of accounting and accountants is vital to achieve the objectives of economic development, both at the macro and micro levels,
- 2 - Very few empirical accounting studies have been devoted to the investigation of the role of management accounting and accountants in the enterprises of the developing countries. This in turn necessitates the urgent need for further empirical accounting research in the developing countries.
- 3 - Almost all the empirical accounting studies tend to rely exclusively on the Western (USA & UK) research models to investigate the management accounting and accountants practices in the developing countries. No serious consideration has ever been given to the use of the alternative research methods which could get the researchers closer to the management accounting and accountants practices in the developing countries, and consequently ensure better results. One alternative could be the preparation of research case studies which could introduce advantages in comparison to the theoretical construction and adoption of the ready-made research models. This in turn suggests the potential that the research case study could provide in empirical management accounting research in the developing countries.



### 1.3 The Use of and The Need for The Research Case Study in Management Accounting Research in The Developing Countries

The previous literature review seems to suggest too that hypothesis-testing studies on management accounting and accountants practices in the developing countries are lacking. Jaggi (1973), for instance, referring to this limitation, argues that:

"No great degree of work has been done in the area of hypothesis-testing studies. Only one study, with some relevance to an accounting development, can be cited. This study is important because it introduces hypothesis-testing research to accounting problems in developing countries. Unless accountants undertake such research, the beliefs, concepts, and theories in accounting for developing countries will remain untested".

Though this fact was stated quite a long time ago, it is still valid. Rikabi (1984), for instance, tends to accept the general pattern of accounting research in the developing countries, rather than considering the advantages of an hypothesis-testing study on the basis that:

"It is widely acknowledged that the level of documented formalized knowledge about management accounting practices in the developing countries is very low. At such a stage of knowledge, a concentrated verification of a narrowly-stated hypothesis would be premature and inadequate method for studying such phenomena".

The lack of hypothesis-testing studies in the developing countries could be attributed to the lack of serious consideration for the advantages of developing research hypotheses to advance knowledge. Referring to the potential of hypotheses to improve knowledge, Kerlinger (1973), for instance, maintains that:

"It can almost be said that hypothesis is the most powerful tool man has invented to achieve dependable knowledge".

The use of research case studies to develop research hypotheses at the early stages of the accounting research which could then be pursued in the second stage of the research, do not yet exist in accounting research in the developing countries. The Saleem (1981) study, though

a hypothesis-testing one, relies exclusively on the Western literature to develop the research problem and hypothesis, rather than preparing a research case study related to the country in question. He uses the same justification of the shortage of the available literature on the empirical management accounting research in the developing countries to develop the research-hypothesis that way. He argues that:

"The researcher, wishing to adopt a rigorous hypothesis-testing approach, has first to spend a considerable amount of time merely to describe and conceptualize those aspects relevant to his work".

In fact the non-use of research case studies in the empirical accounting research in the developing countries tends to conform to the general pattern of the empirical accounting research world-wide. Generally speaking, therefore, accounting researchers in all countries have been reluctant to apply case study approaches to accounting research. Hagg and Hedlund (1979), for instance, notice that:

"Accounting researchers appear to have been less interested in using case study approaches to research than researchers in other areas of social science inquiry, including those interested in other aspects of organization functioning and administration".

It would appear therefore, that "accounting researchers have not seriously considered the potential that case approaches can offer" (Hagg and Hedlund, (1979). This is particularly true for two reasons. First, the case study approach has been successfully used for research purposes in the other social sciences. Second, the advantages of the research case studies have been well documented. McLintock et al (1979), for instance, identify the following goals for using the research case studies:

- "1 - to capture the frame of reference and definition of the situation of a given informant or participant and thus to avoid instrumentation artifacts of standardized measurement procedures,
- 2 - to permit detailed examination of organizational process, and

- 3 - to elucidate those factors peculiar to the case that may allow greater understanding of causality".

Similarly, Ray (1977), confirms the past and future contributions of the case study approach in the development of management studies.

He maintains that:

- "1 - The research case, properly conceived and used, can be an effective means of:
  - accurately observing things and events,
  - providing intimate and habitual familiarity with things, and
  - providing a diagnosis of situations which lead to concept and generalization;
- 2 - In fact, a very limited number of research cases based on individual situations often constitute the factual evidence on which the general theories of our current corpus of knowledge are based, and that
- 3 - The significant contribution of research case studies in the past and its potential application in the future should be explicitly recognized in models of teaching and research strategy".

In view of the lack of the use of the research case study in accounting research in both the developing countries and world-wide, it is the intention of this study to apply this research strategy to investigate the role of management accounting and accountants in a developing country, taking the case of Sudan. Accordingly, two case studies are to be prepared in the first stage of the research with a view to generate locally relevant research hypotheses which are to be tested in the second stage of the research. However, the research case strategy should not be used without considering its possible disadvantages and taking the necessary precautions to minimize, if not eliminate, those problems. One criticism is that case studies may not be appropriate for generalizing their results to the population which they represent. Hagg and Hedlund (1979), for instance, maintain in this respect that:

"Many case studies are criticized for not providing any basis for generalization".

In defence to this criticism, it has been counter claimed that the use of case studies has accelerated knowledge in a variety of management studies. Investigating the sources of evidence in the commonly quoted studies in the field of management, Ray (1977) concludes that:

"The striking feature of the list below, is the dependence of the studies on a single or very limited number of research case studies".

Reasons for selecting the two case studies in the sugar industry will be given below. Needless to say, the two case studies are to be used to generate relevant hypotheses that are to be tested in a large sample which could warrant the generalization of results at the end of the study, but as Hagg and Hedlund (1979) warn, it is important to be clear why the specific cases used should be selected:

"The reason for getting involved with this or that case can often be vague and the choice beyond the control of the researcher. The same applies to what is exposed to us as problems by people in an organization. There is thus a risk of just falling into cases without really knowing why, and specially so in fields of applied science. So for instance, there might be problems of understanding the roles played by accounting systems if we only gain access to profitable enterprises. In any kind of research using case studies, the reasons for and especially the implications of the choice of the particular cases should be clearly and explicitly stated".

### 1.3.1 Selection of The Sugar Industry

The criteria used for selecting the sugar industry for the first research stage are as follows:

- 1 - The sugar industry is a strategic one in the Sudan. Sugar, like oil and wheat, is a strategic commodity. Being widely consumed in the country, sugar might even destabilize governments following sharp price increases or shortage in supply. Angry and tragically violent protests may be sparked off by rise in sugar prices, as has often happened, and may even result in the overthrow of the government.

- 2 - Importance of Sugar for The Sudanese Economy. The government has always held a monopoly over the sugar trade, either through the Duty Department or the Public Corporation for Sugar Trading (PCST). The principal reason for this is the importance of sugar as a source of revenue for the public treasury. While the margin of profit from imported sugar fluctuated with world prices and the falling value of the Sudanese pound, the PCST normally purchases sugar from the government-owned sugar factories and resells it at higher prices, making large profits. Moreover, the economic history of the country reveals that sugar has been an important commodity accounting for a considerable part of the imports of the country. Therefore, despite the fact that the contribution of the sugar industry to the GNP is insignificant, like the manufacturing sector in general, its importance for the Sudanese economy stems from its import-substitution nature and preserving hard currency for the country.
- 3 - As it is the main focus of this study to investigate the role of management accounting and accountants along a public-private ownership dichotomy, the fact that the sugar industry includes both public and private organizations, facilitates this study.

#### 1.3.2 Selection of The Guneid Sugar Company (GSC)

The Guneid Sugar Company (GSC) is selected to represent the other publicly-owned sugar factories for the following three main reasons:

- 1 - As it was established more than two decades ago, the GSC is an example of a pioneering public enterprise not only in the sugar industry, but in the manufacturing sector in general. Therefore, the study of the role of management accounting and accountants in the GSC helps in assessing the capabilities of the public sugar

factories to maintain adequate management accounting and control systems and rely on controllers in the management of the organization.

- 2 - The GSC, unlike the other government-owned sugar factories, adopts the Tenancy System in growing cane, rather than direct labour. This unique situation makes it very interesting to investigate to see how the problem of the price-setting of cane between the tenants and the GSC management presents itself and how it had been responded to and the implications of this, if any, for the role of management accounting and accountants in the price-setting of cane.
- 3 - The GSC, apart from the adoption of the Tenancy System, is similar to the public sugar companies. From an organizational point of view, all the public sugar companies went through the same organization and reorganization process. Originally, all the public sugar factories were run by the Public Corporation for Sugar and Distillery, and when it went into liquidation, these factories were reorganized as separate enterprises. Therefore, one could expect that all the sugar factories to be identical as far as the management accounting and accountants' practices are concerned.

#### 1.3.3 Selection of The Kenana Sugar Company (KSC)

Two reasons are deemed necessary in the selection of the Kenana Sugar Company (KSC) to represent the private sector in the sugar industry.

- 1 - Despite the fact that the efforts of the private sector to establish sugar factories had started in the late forties, nevertheless, the public sector monopolized the sugar industry till the mid seventies. Therefore, the KSC is included in this study as it represents the sole effort of the private sector in the sugar industry.

- 2 - The KSC is bigger than the GSC. This in turn may help us to investigate whether or not the different sizes have any implications for the role of management accounting and accountants in the two organizations.

#### 1.4 The Case Studies Research Method

To achieve the objectives of the two case studies in generating research hypotheses, direct interviews will be used to collect data and construct the two case studies. The obvious reason for this is the unique characteristic of interviewing which could allow the researcher to identify new issues and research problems that could be pursued further in the next stage of the research. Referring to this advantage, Selltiz (1976) argues that:

"The interview always allows the respondent to raise issues and questions the investigator has not previously considered".

More specifically, the use of direct interviewing is considered to be of great importance to achieve the objectives of preparing the two case studies, that is, the development of the research hypotheses. The use of direct interviews is deemed important for this purpose. Kerlinger (1973), for instance, states that:

"It can be an exploratory device to help identify variables and relations, to suggest hypotheses, and to guide other phases of the research".

and that:

"The responses to open-end questions can suggest possibilities of relations and hypotheses".

Therefore, the use of the open-ended questions in preparing the two case studies would seem to be essential to achieve the objectives of the first phase of the research. For further details on the interview

guidelines used to prepare the two case studies, see Appendix A, part I.

Having identified the need for the case study approach in empirical management accounting research in this study in the Sudan, we now turn to give a brief description as to how we will go about preparing the two case studies. This basically consists of two steps. The first step involves a series of activities before the field work. At this stage the researcher has to familiarize himself theoretically with some issues related to the broad issue to be investigated. This is because as Diesing (1972) argues:

"Theoretical preparation is also important prior to beginning field work. The prospective field worker will acquaint himself with a variety of theories (the more the better) that may be applicable to his case. He may also develop checklists of things to look for".

Accordingly, the researcher has to do some theoretical preparation such as the different management accounting techniques and the role of the controllership function as defined by the Western (USA and UK) textbooks, the role of management accounting and accountants in the developing countries, the contingency theory of MAS, and interviewing and interview guidelines. Most important at this stage, the topic to be investigated is generally defined as a comparative study of the role of management accounting and accountants along public-private ownership lines. This is because a "too strict a design ties the research down and inhibits the changes in concepts that are characteristic of field work" (Diesing, 1972).

The second step involves the researcher's activities in the field, which will basically concentrate on data collection by means of the interview guidelines. Additionally, the researcher will stay in both major sugar organizations for several weeks and record any related observations, and collect or investigate any related government or



company records and documents. This will provide background knowledge to facilitate more informal discussion during the interviews.

## Chapter (2)

### The Case of The Guneid Sugar Company Limited

#### 2.1 Introduction

The Guneid Sugar Company Limited (GSC) is a pioneering public enterprise in the manufacturing industry in general and in the sugar industry in particular. It is one of the factories which were established immediately after independence, and started production in 1962. It is a one product company and produces white granulated sugar, in addition to molasses as the sole by-product. The GSC employs about 1410 as permanent employees, and about 1634 workers in the harvesting season. According to the Administration Manager of the GSC, the work force in the company is much more than needed, and described this situation as 'disguised unemployment'. He cited an example of the existence of the two financial managers heading the Financial Administration, who bear the same title and share the same room. When asked why, the Administration Manager argued that:

"They (the top management) do not know where to place him (that is, the second financial manager)".

The idea of establishing the GSC immediately followed the Independence (January 1956). In 1958 a military coup took over, and its leader made it clear that his government is well determined to establish a sugar factory in the country. Speaking on the third anniversary of Independence (January 1959), and according to the warrant of establishment of the GSC, President Abboud declared that:

"We will produce our ammunition, we will generate electricity from Sennar Dam, we will produce enough sugar to meet our requirements, and we will build a mercantile and military fleet. The Sudanese flag will be seen all over the world".

Therefore, it was very clear from the very beginning that the desire

to reach self-sufficiency from this strategic commodity and to spare hard currency for other uses, were the main motives for erecting the factory. These goals are again emphasized in the warrant of establishment of the factory which stated that:

"In addition to the political objectives of the scheme, which are mainly to produce sugar and develop the area, the following objectives are deemed essential:

- To preserve foreign exchange allotted to importing sugar, and
- To reduce the reliance of the economy on one cash crop - that is, cotton".

At the factory level, the GSC management seemed to have got the same message. When asked what they are trying to achieve in the GSC, the general manager said:

"Our objectives are determined by a higher authority, which is the government, which formulates the policy within which we work. For instance, if there is a demonstration due to a shortage in sugar, which is a strategic commodity, this will adversely affect the dignity of the government, and consequently, we are urged to produce more sugar".

When asked to list the specific objectives of the GSC, the general manager identified the following two objectives:

- To maximize production so that the country can reach self-sufficiency, and
- To enhance regional development by creating more job opportunities and providing free health and education services to the citizens of the Guneid area. Indeed, there seemed to be a general agreement among managers as to these goals. For instance, when the deputy general manager of the GSC was asked whether profitability is one of their objectives, he was surprised by this question, and rejected this idea very strongly, saying that:

"Profitability? What do you mean profitability? Do you mean profitability in terms of money? No, this is not part of our objectives! We are supposed to produce sugar with the minimum cost possible as it is a strategic commodity and to reach the maximum capacity of the factory. Moreover, the project should provide services to the citizens and increase their income".

Certainly, it is the pursuit of these social and political objectives, rather than the economic ones, which justified:

- (i) The survival of the GSC despite the fact that, according to the company financial statements as at August 1984, the GSC incurred losses up to Ls 55 million (Sudanese pounds), which is more than five times its original capital (Ls 10 million),
- (ii) The huge subsidization by the government of the annual budget which shows annual huge deficits, and
- (iii) The way the sugar and cane prices are fixed, as will be discussed.

Like most of the public sector enterprises, the organization structure of the GSC is of a multiple authority level. Figure 2.1 shows the organization chart of the GSC. This organization chart is based according to the provisions of the 1976 Public Corporations Act. According to this organization chart, the Minister of Industry undertakes the general supervision of the entire industrial sector in a way which safeguards the public interest, and additionally, he is responsible for the performance of the public manufacturing sector to the President of the Republic and the People's Assembly. Immediately below the ministerial level, comes the Sectoral Corporate Level, which in the case of the industrial sector is represented by the Industrial Production Corporation (IPC). According to the establishing order of the IPC, its main task involves the 'execution of projects in accordance with the development plan, planning and supervising the new activities and the development of the existing industries'. Additionally, it is the duty of the IPC to supervise, control and co-ordinate, as well as monitor the performance of the Branch Corporations, without interfering in their day-to-day operations.

The next authority level shown on the GSC organization chart is the

Branch Corporation level, which in the case of the sugar industry is represented by the Public Corporation for Sugar and Distillery. This Corporation was created to manage the public sugar factories, including the GSC and other three sugar mills. The Corporation retains full authority to make all the major decisions in the GSC. Moreover, its warrant of establishment identifies the following objectives to be followed by the Corporation:

- (i) To increase the sugar production by maximizing the available production capacity of the publicly-owned sugar factories,
- (ii) To reach self-sufficiency and export the surplus,
- (iii) To market sugar locally and the by-products as well, and
- (iv) To conduct researches and studies which are related to the sugar industry and the by-products.

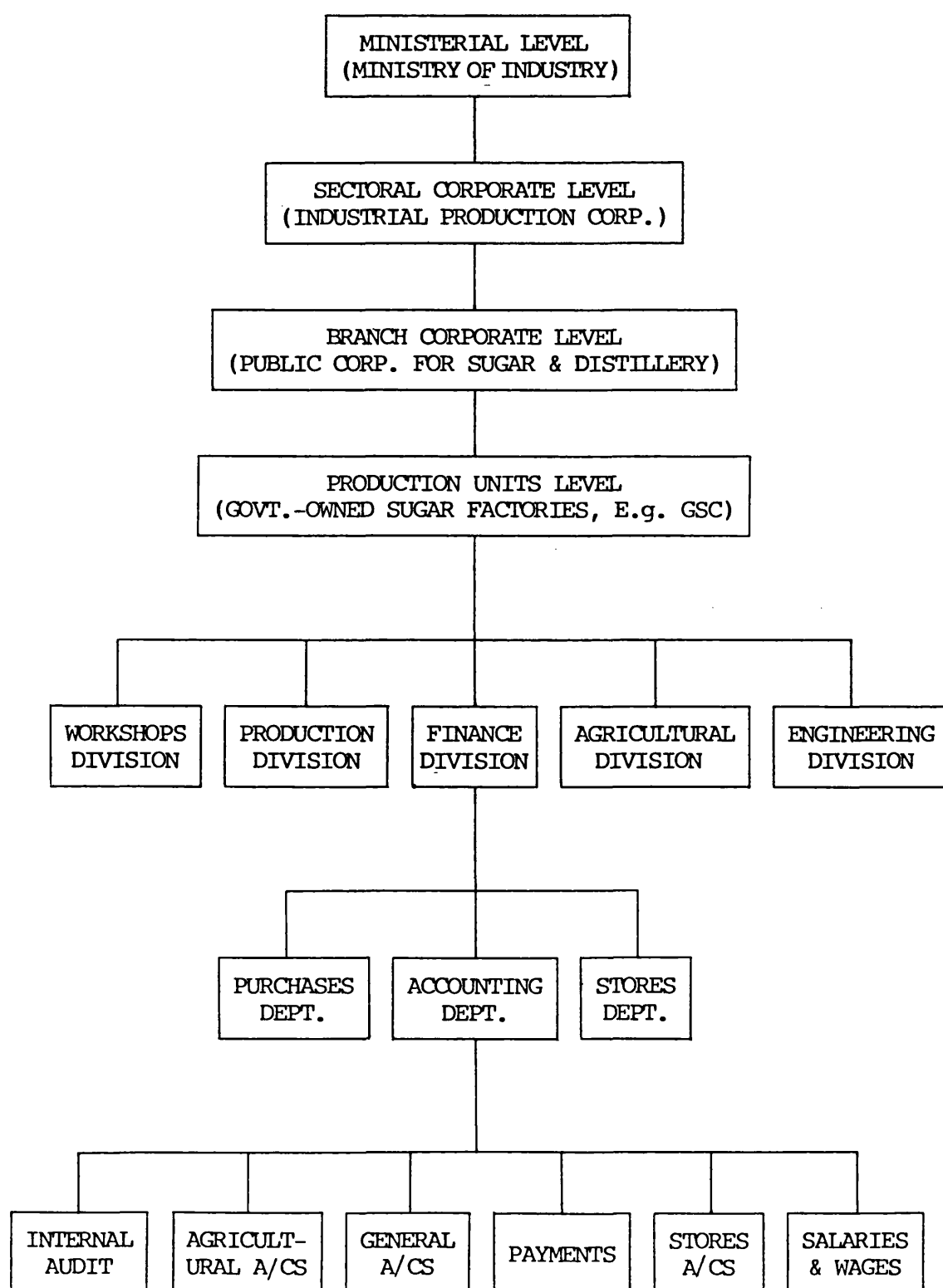
Finally, at the bottom of this organization structure comes the "production units" level which is represented by the individual public sugar factories. At this level, the activities are mainly production. The GSC as a subsidiary of the Public Corporation for Sugar and Distillery, refers all its decisions to this Corporation. At the GSC level, six departments could be identified, including Finance, Production, Workshops, Engineering, and the Agricultural Departments.

Since the 1976 Act changes have occurred in this organization structure. Following the last restructuring measures in the public industrial sector, which took place in May 1981, both the Sectoral and Branch Corporate levels in the sugar industry went into liquidation. Almost all the authorities of these corporate levels were transferred to the Ministerial level, except for the authority to appoint the junior staff. Therefore, the GSC continued to refer all its major decisions to the Ministry of Industry, which in addition is responsible for solving

Figure 2.1

The Organization Chart of The GSC

(According to The Public Corporations Act, 1976 - Now Amended)



the operating problems that encounter production in the GSC, such as irrigation, electricity and hard currency problems. By virtue of these changes, the GSC was registered as a public limited company under the 1925 Companies Act. To satisfy the requirements of this Act, El-Nilein Bank, itself being owned by the government, participated as a second shareholder and subscribed about 1% of the GSC share capital, whereas the Ministry of Finance continued to own the other 99% of the GSC share capital. When asked about the implications of these changes for the managerial autonomy of the GSC, the general manager stated:

"It is only the name that changed, and nothing else".

It is quite evident, therefore, and so far, that these changes are only symbolic, though they are part of the current "privatization trend" which is triggered by the poor financial performance of the public manufacturing sector.

## 2.2 The Application of Cost Accounting Techniques in GSC

### 2.2.1 The Budgeting System

One of the major characteristics of the GSC financial administration is that it just follows the pattern in the other government central ministries and departments, mainly established to provide services to the public, without adaptation to make it suit a manufacturing concern. Therefore, as a tool of management and as a device for performance evaluation, the budget prepared in the GSC is a deficient one. Instead, it is mainly looked upon as a means of providing estimates required by the higher authorities, that is, the Ministry of Finance, to prepare the overall government budget. The GSC annual budget mainly consists of two sections. The first section represents the revenues of the company which are basically reached by multiplying the expected production times

a provisional price. The second section of the budget is the expenditure side of the budget. The expenditure side could further be subdivided into three parts:

- Chapter One, which contains estimates of salaries and wages, allowances, pensions, and other employee privileges,
- Chapter Two, which includes the direct operating expenses other than salaries and wages, and
- Chapter Three, this includes small development projects, such as the purchases of vehicles, stationery and air conditioners.

The annual budget then ends up with either a deficit or a surplus. However, due to the chronic problems which the GSC faces, as will be discussed later, the budget normally shows huge deficits, which are to be financed by the Ministry of Finance. When asked about the reasons for adopting this budget format, the GSC financial manager stated:

"This is the form required by the Ministry (of Finance) which is typical to the form of the government budget".

Moreover, the GSC budget is subject to the approval of the Ministry of Finance. The budgeting process in the GSC goes through the following patterns of procedures. First, upon the receipt of fairly general guidelines from the Ministry of Finance, the heads of the different GSC departments are required to submit their budget proposals according to these guidelines. Second, the financial manager aggregates all these estimates in one budget for the GSC as a whole. Heads of departments are then required to defend their estimates before the general manager in a general meeting. Finally, accompanied by the financial manager, the general manager then discusses and defends the budget proposals before the government officials in the Ministry of Finance. At this stage, due to the huge deficits shown on the GSC budget together with the deficit



of the state budget, the GSC budget is subjected to huge cuts. The following statements by the financial manager and the general manager are indicative. These budget cuts are deemed necessary to reduce the amounts of subsidies paid by the public treasury.

"The main concern of the government officials is the ultimate result of the budget, that is, whether it shows deficits or surpluses. If it shows deficits, then they will decide where to cut, sometimes they cut the budget as a penalty, and sometimes they force us to increase our revenues".

"We discuss our budget with technically-unqualified personnel whose primary concern is to carry out the instructions of the Minister (of Finance) written in the financial guidelines".

As a result of these likely budget cuts, the following statements suggest the probability of building budgetary slack.

"I receive some guidelines as to how to estimate Chapter Three. Chapters One and Two are estimated by the financial manager on the basis of the actual expenditure for the last year. We do not inflate our estimates, but others do".

"The system of the private companies is the best to judge the performance of people on the basis of their productivity and the profit they make. On the contrary, people in the public sector overestimate the materials which they need".

#### 2.2.2 The Area of Costs

The area of costs in the GSC is also another one where the traditional accounting methods followed proved to be of great hindrance to performance. There is no serious attempt to identify and attribute the costs of production either in the final stage or in the various stages of production. This results in a variety of problems, especially in the price-setting of cane with the tenants, as will be explained later. Cost accounting, standard costing and variance analysis systems, as major cost accounting tools, are not used in the GSC. This is in spite of the fact that last year a team from the Management Development Centre (MDC) designed and recommended a cost

accounting system for the agricultural operations, but it hasn't been implemented. This year, at the time of data collection, another consultancy team from the MDC was considering designing a cost accounting system for the production operations. When asked why they did not implement the proposed cost accounting systems, an accountant in the Financial Administration said that the management was not enthusiastic to it.

"This management has no sense of cost at all. I have wasted my time attending courses on cost accounting systems both in Sudan and Egypt".

The financial accounting system of the GSC, itself being designed by the Public Corporation for Sugar and Distillery is built around the budget. Therefore, the chart of accounts of the GSC is no more than the budget expenditure and revenue items of the budget, which could be termed as 'fiscal accounting'. This fiscal accounting system is heavily geared towards the estimation and control of the annual budget. The single entry book-keeping system is used to record the transactions of the company.

Furthermore, both the budgeting and the financial accounting systems and a variety of other activities in the GSC, are all governed by the provisions of the 1978 Government Financial Regulations. According to these Regulations,

"The financial systems of the public corporations, banks and companies, should not conflict in essence with the objectives of these regulations".

These government financial regulations are issued by the Ministry of Finance, and are adhered to by the Central and regional government units. The GSC adopted these regulations after deleting similar ones following the 1981 restructuring measures.

"We used to follow the regulations issued by the Industrial Production Corporation. After its liquidation, the Minister of Industry referred us to these regulations".

These government financial regulations cover a variety of activities ranging from the budget structure to be followed by the public enterprises and the detailed procedures of purchases of raw materials, the storage procedures and safekeeping of public money. In the following lines we will quote the relevant parts which the GSC, as a public enterprise, has to observe:

- 1 - Chapter Two, this part of the regulations explains in detail the procedures of preparing budgets and the various classifications and subcategories of both expenditures and revenues, in addition to the budget format.
- 2 - Chapter Three, this part of the regulations show the procedures connected with purchasing and contracting. Accordingly, all the government units are required to acquire their purchases of raw materials and spare parts by means of public tenders to be published in the daily papers for a period of not less than two weeks. This advertisement should include some information such as a brief description of the goods or services to be acquired, places and ways of delivering these goods and services, and any other conditions and specifications. Where it is impossible to acquire such purchases by means of a public tender, the government units may acquire their purchases by means of a limited tender or a direct purchase. All heads of the government units should notify the National Purchases Administration, of the Ministry of Finance, if:
  - Their purchases by means of a public tender exceed Ls 10,000 at one time,
  - Their purchases by means of a limited tender exceed Ls 1,000 at one time,

- 3 - Chapter Twelve, this part of the regulations emphasizes the necessity of safeguarding the public money, for which the heads of the government units are held responsible. The regulations then explain the procedures to be followed with respect to handling cash and cheque payments and receipts, and the measures of keeping cash in metal treasuries (i.e. safes).
- 4 - Chapter Thirteen, explains in detail the handling of receipts, issues and storage of materials and spare parts, together with the importance of keeping proper storage accounts. The responsibility for safeguarding stores in the government units rests with the stores manager or the heads of accounts in the absence of the former. In conclusion, therefore, these government regulations, whether applying to the accounting systems or the other operations, are heavily geared towards safeguarding the public money and limiting the number of thefts and defalcations.

### 2.2.3 The Audit Function

As a result of the application of the government regulations in the GSC, the role of the internal audit department in the GSC is highly influenced and guided by some rules and principles of auditing applicable to the government departments under the pretext that all is public money. Consequently, the major objectives of the internal audit department in the GSC is to minimize defalcations and thefts by ensuring adherence to the government financial regulations and checking the company transactions on daily basis. Emphasizing this point, the chief internal auditor stated that:

"It is not acceptable for this auditing team to recognize any purchases that are not governed by certain procedures and rules prevailing in the pure government domain".

The manpower of the internal audit department consists only of two auditors. Another major constraint which hinders the work of the internal audit department, is the fact that the chief internal auditor reports to the financial manager, as it is part of the Finance Division (see the organization chart). When asked about the reason for this, the chief internal auditor argued:

"We know that we should report directly to the general manager, because we are supposed to control the activities of the financial manager himself. However, we just inherited the system of the corporation (of Sugar and Distillery)".

Additionally, the GSC is externally-audited by the Chamber of the Auditor General, which is supposed to conduct the audit on annual basis, but in practice it is done on an irregular basis.

### 2.3 Accounting Services To Management

These investigations showed that the management accounting services to the GSC top and middle management are virtually absent. When asked whether or not he produces any accounting information for the uses of the GSC management, the financial manager said that:

"We produce an accounting report on a quarterly basis in which we investigate the budget performance, though we have no cost accounting system to rationalize expenditure. We identify discrepancies, but we do not receive any responses from the general manager".

Upon investigation of this report, it is quite clear that it was produced in a very crude manner. This quarterly report mainly consists of two columns. The first column shows the actual expenditure for the last three months budget item-wise. The second column shows the budgeted amounts for the whole year and for the whole company. Furthermore, and though this sole control report is supposed to be produced quarterly, it is normally produced three or four months late. When asked for the reason, the financial manager said:

"Since it is prepared manually, our accountants can hardly find ample time to prepare it quarterly".

This is because before the beginning of the financial year, accountants are busy preparing the budget estimates which have to be submitted to the Ministry of Finance three months before the financial year starts. Three months before the end of the financial year, accountants start preparing the final accounts to conform to the requirements of the Chamber of the Auditor General as regards submitting the financial statements. In fact only one control report had been produced within this year though the GSC budget was approved six months ago.

For cross-checking purposes, the GSC managers' opinions on the accounting services to them were solicited. At the top management level, only the general manager is reported to have received accounting reports which are mainly the supposedly quarterly control report and the conventional financial statements. At the middle management level, managers either do not receive accounting reports at all, or receive them very late. The following statements are illustrative.

"I need a monthly financial report to make sure that I am operating within the budgeted amounts. I also need to know the actual costs for each agricultural operation. However, I receive none of these at the moment, though we agreed with the financial administration to send these monthly reports".

"I receive a control report which is prepared in an aggregate form and we receive it very late, and by that time it is valueless. This is impractical for expenditure control".

"We used to receive monthly information which compares the budgeted with the actual expenditure, but it has been stopped now, though we told them (Accounting Department) that we need this kind of information".

"We receive biannual reports which show the budgeted amounts without being compared with the actual expenditure. We write to them (Financial Administration) to tell us how much we exceeded the budget, if we feel that there is a significant variance. We receive an inaccurate and late response".

#### 2.4 Managers' Uses of Accounting Data

We have already shown that the GSC general manager is the sole recipient of accounting data: basically the quarterly report and the annual financial statements. Needless to say, this reduces the potential users of accounting data in the GSC. When asked for an opinion on the general manager's uses of accounting reports, the financial manager maintained that:

"Top management goes through these reports, but I receive no feedback. In my opinion he reads them carelessly, because the reasons of losses are known to him".

"The management does not know the value of these reports, and he does not even know his basic functions".

The general manager's opinion on the uses of the accounting reports, on the other hand, was solicited. Regarding the quarterly budget follow-up report, the general manager made it clear that he uses the report as an indicator to ask the Ministry of Finance for more budget appropriations.

"If we feel that there are significant adverse variances, we just ask for more funds".

According to the general manager, this situation arises upon the occurrence of uncontrollable factors, such as sharp increases in the oil prices and the devaluation of the Sudanese pound. When asked about the benefits of the annual financial statements, the general manager made it clear that he relies on them to know the volume of losses.

"The profit and loss account shows us how much losses we incurred during the financial year".

Apparently, the GSC top management does not even use these financial statements to evaluate the performance of the company. The reasons for this are two-fold. First, the GSC top management believes that as the most important decisions are made outside the organization, it is not responsible for their consequences.

"No decision is made inside the factory. We plant cane and produce sugar. All the decisions are centralized in the Ministries of Finance and Industry. Our purchases should pass through the National Purchases Administration, the price of sugar is determined by the Public Corporation for Sugar Trading, and we have no say in the prices of cane".

Second, the GSC management believes that the solution of the problems that hinder production is the responsibility of the Ministry of Industry as the government supervising body. Therefore, the GSC top management believes that it is responsible for neither their solution nor their consequences regarding the GSC performance.

"Our problems are basically the shortage of electricity power and the inefficient water pumps. We are not supposed to do the others' work for them!! We cannot even solve these problems without the consent of the concerned government bodies".

The GSC management attributed the huge losses mainly to three problems. The first problem is that of irrigation. This has been one of the most chronic problems of the GSC for quite a long time. This problem arises mainly because of the frequent electricity cuts and the fact that the water pumps, which were originally erected to irrigate cotton which needs less water, are almost fully worn out. The second problem is the hard currency. This is a common problem, and it arises when the GSC needs to acquire some raw materials and spare parts from abroad. The third problem is the shortage of electricity supplies. This problem is in fact quite common to all other factories in the last years. The GSC general manager said in this respect:

"All the government factories are subject to this problem. It is a national problem, and we cannot help it".

It is for these reasons, therefore, that the amounts of sugar to be produced in a certain milling season are not estimated in advance, and they depend only on the intensity of these problems.

The GSC top management, on the other hand, relies heavily on the



informal means to manage and control the operations of the company. This basically involves the face-to-face meetings with the middle managers at the headquarters of the GSC. Wondering about how to meet the managers of the divisions, the general manager told the researcher:

"You can meet all the managers of the divisions either in my office or in the office of the deputy general manager. They are usually around, especially in the morning".

The workshops manager, confirming the same point, added:

"We call it (the office of the general manager) the clinic. The reason for this is that you often find it overcrowded with managers and guests waiting to see him (the general manager)".

Indeed, the presence of the divisional managers in the general manager's office is quite normal and often, as the researcher observed during his stay in the company. At one time, the general manager sent a car to collect the agricultural manager to discuss some issues.

#### 2.4.1 Managerial Decisions and Accounting Data

##### 2.4.1.1 Setting A Price For Cane

This is a major question, about which there is considerable controversy, as it involves social, political and economic considerations for the GSC. The GSC is an integrated agro-industry entity, which consists of an estate and a mill. The estate was originally part of the Gezira scheme, which used to grow cotton. When it was decided that the sugar mill was to be established in the Guneid area, and being pushed by the political objectives, it was decided to grow cane for the sugar factory, without defining the production relations between the tenants and the would-be factory. Therefore, the GSC management faced undefined production relations and dealt with cane producers who are neither full owners of the land nor hired labour. This problem affects the performance of the GSC to a great extent, and different government commissions established to investigate

the performance of the GSC recommended the abolition of the tenancy system, and its replacement with direct labour. However, due to political reasons, this decision has never materialized.

Therefore, setting a price for cane is one of the crucial issues of the GSC. Normally, at the beginning of each crushing season, a delegation from the Tenants' Union holds a series of meetings with the GSC management represented by the general manager, the agricultural manager and the financial manager, to fix a price before the cane can be transported to the mill. The general manager then asks the financial manager to prepare a special study showing the costs of the agricultural operations, including the costs of ploughing, chemicals and the costs of the mechanical operations. However, traditional methods are used to arrive to the cost per ton of cane. The financial manager compiles the cost figures which basically include the cost elements in Chapters One and Two which are relevant to the agricultural operations. The objective of this study is to arrive to a rough cost per feddan, the recommended price per ton of cane, and the expected income to the tenant. For instance, a special study by the financial controller shows the following rough estimates:

- Costs per feddan are up to Ls 600.00,
- It is expected that the productivity per feddan (as estimated by the agricultural manager, despite the fact that the actual productivity of the project is much lower due to the irrigation problems) is 15 tons of cane,
- The proposed price per ton of cane (as estimated by the financial manager on the basis of the prices of sugar and the cost per ton of cane for the other three public sugar factories operating on direct labour basis rather than the tenancy system) is Ls 30.00, and

- Therefore, according to these estimates, if a tenant owns four feddans, then his expected income will be as follows:

- Expected Revenue ————— 4 x 15 x Ls 30.00 = Ls 1,800.00
- Costs for 4 feddans ————— 4 x Ls 600.00 = 2,400.00
- Expected Income for the tenant (debts) (Ls 600.00)

Therefore, according to this study, the tenants who own 4 feddans owe the GSC Ls 600.00. If this proposed price is accepted by the tenants, then it means that this amount will be carried forward as debts in the tenant's permanent account kept by the Agricultural Accounts Section. However, the Tenant's Union pressurizes the GSC management to reduce costs per feddan, to write off any carried forward debts, and to increase the proposed price per ton of cane. When asked about whether this special study represents the basis on which the prices of cane are to be negotiated, the financial manager rejected this idea.

"The essential thing is to give tenants a reasonable return to maintain their standard of living. This is because it is the only source of living for them, and they are not responsible for the deterioration of the productivity of the project".

Furthermore, when asked about the exact price which they agreed with the tenants, the financial manager refused to mention the exact figure, but made it clear that:

"It was much more than suggested (by the GSC management)".

This problem is worsened by the fact that the Tenants' Union does not trust and rely on the calculations prepared by the GSC financial manager. Both the general manager and his deputy argued in this respect:

"The tenants suspect the accuracy of the costs prepared by the financial manager. Therefore, the objective of this study no longer holds, and it acts as an indicator because the circumstances (problems of the project) are abnormal".

"The Tenants' Union have got their own calculations and the whole thing is a matter of bargaining".

In almost all cases the GSC management had historically not been able to fix a price of cane with the tenants. Normally, when negotiations reach deadlock, the Tenants' Union take their case to the Ministry of Industry, where prices contradictory to those recommended by the GSC management, are fixed. Needless to say, as far as the GSC is concerned, this is a typical decision area where the reconciliation of the social and political objectives with those which are commercial, proved to be a difficult one, if not impossible. Referring to this critical position, the general manager stated:

"We told them about the national role of the factory, but they (the tenants) did not appreciate it".

#### 2.4.1.2 Setting a Price For Sugar

The Public Corporation for Sugar Trading (PCST), fixes the price of sugar for all the public sector sugar factories. Usually, at the beginning of the production season, the PCST requests the public sugar factories to submit some information on the production costs. However, the managements of the public sugar factories, including the GSC, do not participate in the price-setting process. The prices fixed by the PCST are reviewed every two, and sometimes, three years. In response to this request, the financial manager of the GSC submits a total cost figure, which is merely the sum of Chapters One and Two of the annual budget. According to the financial manager, the PCST fixes a unified price for all the publicly-owned sugar factories. Accordingly, the present price of a ton of sugar is Ls 400.00, whereas the actual costs of production for the GSC is Ls 550.00.

Therefore, while this price may be fair to the other public sugar factories which have their own cane estates, it is definitely unfair to the GSC which adopts the Tenancy System, which in turn increases the

costs of production as has been explained. This lower price of sugar explains to a greater extent the huge losses which this factory incurred which, according to the 1983/'84 Balance Sheet, exceeded Ls 55 million, carried forward since 1973 when the factory started to make losses. What is surprising, is that our investigations showed that the PCST sells sugar to the final consumer at much higher prices than those paid by the Corporation to the public sugar factories. This situation results in a feeling of resentment among the GSC management. The financial manager for instance, stated:

"They (the PCST) make profits and pay bonuses to their employees, and we incur huge losses on a yearly-basis".

#### 2.4.1.3 Plans For Rehabilitation

The GSC is currently undergoing a rehabilitation scheme, which is a huge investment programme launched two years ago. It came into existence as a result of the huge losses which the GSC incurred and the continuous deterioration in the production capacity which dropped as much as 25%. The Department of Planning (of the Ministry of Finance) is in charge of this programme. According to the general manager, the programme is divided into two stages:

- Stage One. This stage involves a rescue programme of supplying the factory with the urgently needed spare parts, and
- Stage Two. This is a long-term development programme which includes replacement of some machines and boilers and the water pumps which were erected more than two decades ago. Upon the request of the financing bodies, a British firm (Tate & Lyle), which is a leading company in the sugar technology, was chosen to conduct the feasibility study of the rehabilitation scheme. The feasibility report is very detailed and it shows the long-term projections for the sugar consumption in

the country, and the expected profitability of the GSC in the next two decades on the basis of the expected production costs and prices. Due to the shortage of the hard currency, foreign financiers, including the World Bank, the German Lending Fund, and some other lending funds, are expected to finance the rehabilitation project.

## 2.5 The GSC Management

Both the general manager and his deputy, are electrical engineers, with their basic (Bsc) degree from Khartoum Polytechnic. Both the general manager and his deputy attended a two-months' training course in Sweden. The emphasis of the course was a purely technical one concerning the "Administration and Organization of Maintenance". These and all the other training courses attended by the different management levels are arranged by the Industrial Training Administration, of the Ministry of Industry, in collaboration with the National Training Administration. Most of the GSC management staff spent their working experience either in the public sector enterprises or the civil service. Thus,

- The general manager, started his working experience as an electrical engineer in the GSC in 1963. He was then promoted as the production manager, and later on appointed as the general manager of the GSC. He was then transferred as a general manager to another government-owned sugar factory, and subsequently transferred back to the GSC.
- The deputy general manager started his working experience as an electrical engineer in the GSC in 1967. He was then promoted as the chief engineer in the factory, then appointed as the production manager, and finally appointed as the deputy general manager. By the same token most of the middle managers spent their working experience in the publicly-owned sugar factories. Still other managers joined the GSC either from the military or civil service. The

Administration manager joined the GSC after retiring from the army.

Nevertheless, it seemed that he is adapted to the GSC budgeting system very easily, as it is similar to the one used in the armed forces. He confessed:

"I am an ex-soldier. I can only understand this type of budget, because we are used to it in the army".

The Engineering manager used to be a civil engineer and joined the GSC from a regional municipality.

The appointment of the GSC senior management staff, that is, the general manager and his deputy and the managers of the divisions, is the responsibility of the Ministry of Industry. These senior management positions could be filled in either by promoting the GSC staff on the basis of their seniority and their working experience in the public sector, or by transferring management staff from the other public sugar factories. The authorities of the GSC top management in this respect are confined to the appointment of the junior staff.

When both the general manager and his deputy were asked about the importance of the financial manager in the company, they agreed that it is essential. When asked to identify the areas in which they think that the financial manager could help them,

- The general manager identified two areas:
  - To prepare the budget and explain it to the government officials, and
  - To chase the government officials in the Ministry of Finance for more funds when the factory faces serious liquidity problems.

"If you do not pay the employees their salaries, they will leave and the work will stop! Therefore, he (the financial manager) has to follow-up the finance sources".

- The deputy general manager maintained that:

"The financial manager should provide the company with finance and contact the government officials in the Ministry of Finance. Also he has to procure the purchases of raw materials and to handle the related procedures".

Apparently, therefore, the GSC top management emphasized the role of the financial manager in asking the government officials to approve more funds when the factory faces serious liquidity problems. During this researcher's stay in the GSC of two months, the financial manager made two trips to Khartoum for this purpose.

For cross-checking purposes, the financial manager was asked about the importance which top management attaches to his position. He reckoned that the top management thinks that his main job is mainly record keeping. He also suggested that he had poor communication channels because of the top management's education background in engineering.

"Managers think that the role of the financial manager is confined to calculating wages and preparing the final accounts for the Auditor General. Sometimes they act as a stumbling block, because they authorize payments outside the budget, a practice which violates the government financial regulations. Some of them have got the feeling of superiority as engineers".

Finally, another distinctive feature of the GSC is the lack of job description for the various positions. When asked about this, the Administration Manager showed us a detailed report. According to this report, the previous Minister of Industry formed a committee for studying the job structure of the public sugar factories. The objective of this committee was to design job descriptions for the various positions in the public sugar factories. According to this report, the committee suggested that the Financial Administration in these factories should perform the following tasks:

- 1 - The accounting and financial supervision of the unit,
- 2 - To provide help and guidance for the different management levels,



as far as the financial matters are concerned,

- 3 - To develop and simplify the procedures which aim at the financial control and protecting the fixed assets of the company,
- 4 - To prepare and analyze the monthly and yearly reports with special attention to areas of cost and budget control, and
- 5 - To make sure that the government financial regulations are adhered to and not violated. Financial managers are entitled to perform these tasks without permission from the general manager of the unit.

Before the results and recommendations of the committee were finalized, however, the Minister of Industry who formed the committee was replaced by another. Since then (i.e. 1983) these recommendations have not been passed. It is worth mentioning, too, that this very Minister intended to employ foreign management to run the four government-owned sugar factories (including the GSC), but these plans were abandoned by the new Minister of Industry.

Chapter (3)

The Case of The Kenana Sugar Company Limited

3.1 Introduction

Kenana Sugar Company Limited (KSC) is a leading private company which produces mainly white granulated sugar and sugar cubes, in addition to molasses as a sole by-product. The KSC is the largest integrated sugar estate in Africa, and the third largest world-wide, in terms of both size and capacity. The KSC workforce consists of 6,000 permanent employees, with an additional 9,000 seasonal workers engaged for the duration of the crop. Lonrho Limited, a British leading company in sugar technology was selected to erect the factory. The KSC employs an advanced Western technology as an integrated sugar estate in cane planting and harvesting, sugar processing, car repairs and maintenance, and irrigation.

When the KSC started commercial operations in 1978, Arkel International, a leading American company in the sugar industry, was appointed to manage the factory on a three-year management contract basis. During this period, the Arkel International Inc. retained full authority and responsibility for the management of the KSC. According to the financial controller and the Chief Accountant of the KSC, most of the existing cost accounting techniques and management control systems were originally introduced by the Arkel International Inc. The current senior management staff is dominated by the Sudanese nationals as part of the Sudanization programme following the expiration of the management contract with Arkel International, together with few expatriate managers who were originally working with the Arkel Company, including the chairman of the Kenana Technical Committee (KTC) and the sugar production manager.

When asked about the major goal of the KSC, the managing director of

the KSC identified the profit motive as the basic goal of the company.

He stated in this respect that:

"Our major goal is to extract as much sugar as possible from cane and to make profits".

When asked whether or not providing social services (i.e. health, education, .. etc.) is the major goal for the KSC, the managing director denied the idea on the basis that,

"You cannot provide social services unless you make profits".

Similar responses for the same question were given by the assistant managing director and the KTC chairman.

"The KSC operates as a commercial company to make profits, though we provided some services which are normally provided by the governments such as providing the township with water and electricity facilities".

"To produce sugar as efficiently as possible, to develop the natural and human resources, and to make profits, which is a basic objective".

Further, the KSC organization manual has stressed the profit-making goal as the primary one. Additionally, the KSC organization manual and its memorandum of association have acknowledged Kenana's impact on the social and economic development of the Sudan in the following areas:

- (i) Creation on a large scale of employment opportunities for the Sudanese nationals,
- (ii) Reduction in the Sudan's deficit in its balance of trade and balance of payments on current account,
- (iii) Transfer of technology into the Sudan,
- (iv) Creation of technical training opportunities both in situ and overseas, and
- (v) Impetus to sugar-cane research and development in the Sudan.

The KSC is run on a direct management basis, which is managerially autonomous. The organization chart of the KSC is shown in figure 3.1.

KSC is subdivided into six divisions including the Finance and Administration, Cane Production, Sugar Production, Cane Crop Coordination, Central Workshops and Kenana Technical Committee (KTC). This structure reflects the big size and complexity of the organization as an integrated sugar estate. Despite this fact, the span of control in the KSC has been minimized to the extent possible and at various levels to facilitate control. The KSC structure has been built on the line-staff basis. Both the Organization Manual for the KSC as a whole, and the Policies and Procedures Manuals for the various divisions, subdivisions and departments, describe in detail the authorities, responsibilities and qualifications required of each position at the different levels in the managerial hierarchy.

The Accounting Policies and Procedures Manuals, for instance, contain various sections. These sections normally include organization sections, which provide the organization chart of the KSC, the Finance Subdivision and the Accounting Department, together with a detailed description of the authorities, responsibilities and the job requirements for the various sections within the Accounting Department. Additionally, the Accounting Policies and Procedures Manuals include other procedural sections such as the various accounting operations and formats connected with accumulating and reporting the accounting reports, the chart of accounts, the various cost centres and their codes, the relationships among sections of the Accounting Department and with the other divisions and departments, the preparation of the fixed and flexible budgets, and the various procedures connected with producing and using the Cost Centre Control reports. According to the Chief Accountant, the Accounting Policies and Procedures Manual serves as a reference guide which assures the application of consistent procedures and practices, helps train new people, provides a

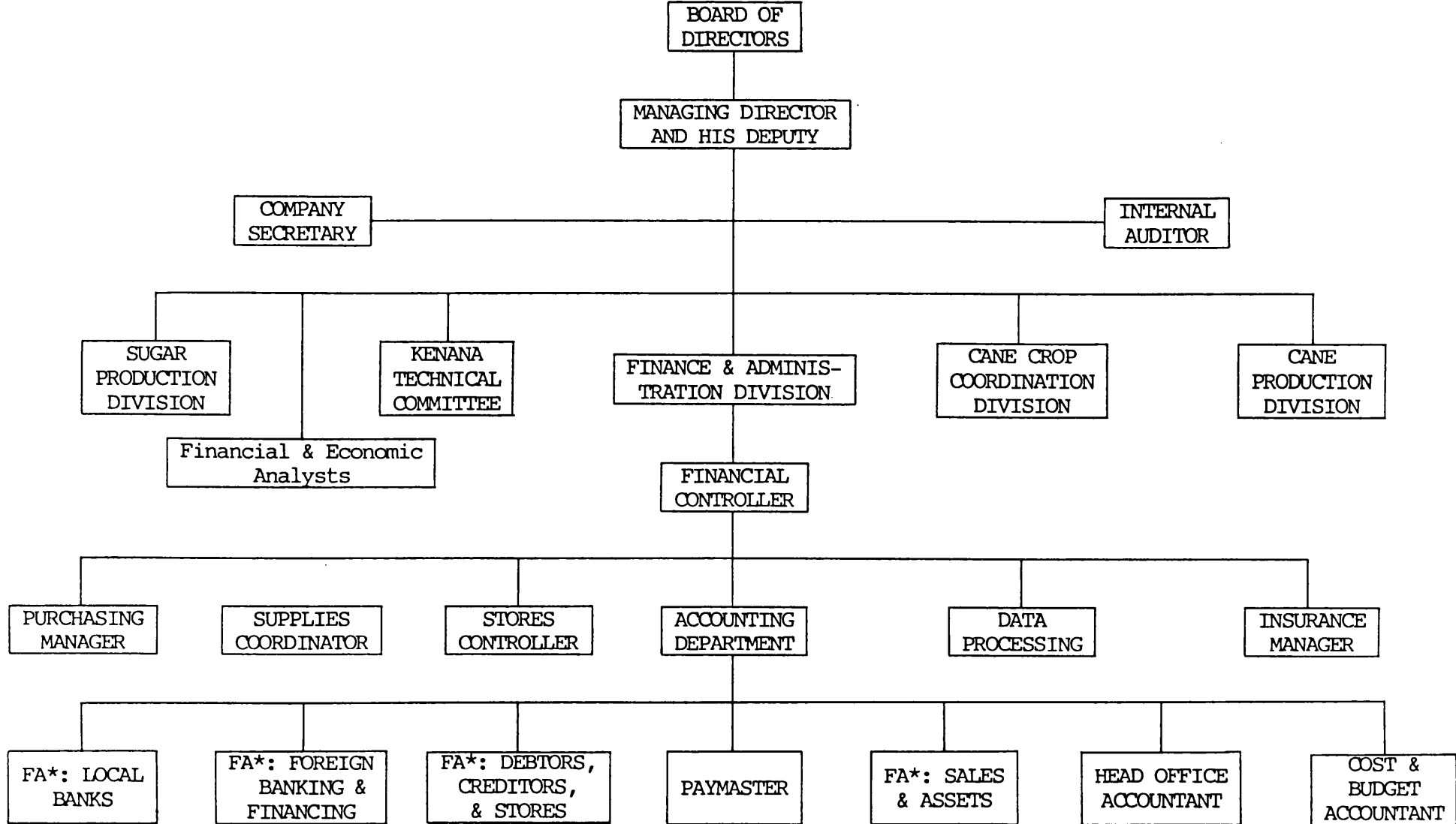


FIG. 3.1: The KSC ORGANIZATION CHART

FA\*: FINANCIAL ACCOUNTANT

basis for audit by both internal and independent auditors, creates a uniform system for all personnel in all offices, and provides documented advice to all manual holders that these are the policies of the KSC top management.

KSC top management maintains that such a detailed organization chart and definition of authorities and responsibilities of the different management levels, is vital for the efficient and effective production of sugar and maintaining tight financial and managerial control. The managing director, who is a Sudanese, for instance, maintains that:

"The orderly nature of the organization chart will lend itself to developing systems and means of control".

The assistant managing director, who is also a Sudanese, claimed that:

"We have recognized that the development and implementation of a well-defined organizational structure is essential for the company to meet its objective of efficient production of sugar".

Similarly, the KTC chairman maintains the same position:

"An organization plan which defines the functions, the positions, the duties associated with each position, and the lines of authority, responsibility and communication is required, if the company is to operate at maximum efficiency, especially an enterprise of the magnitude and complexity of the KSC".

### 3.2 Application of The Cost Accounting Techniques in KSC

#### 3.2.1 The Budgeting System

##### 3.2.1.1 Long-term Budgeting

The cash flow projections are the most important long-term budgeting device. The KSC management, foreign contractors and lenders, rely heavily on this planning device for decision-making. Both the financial controller and the economic and financial analyst devote considerable time to preparing these projections. The preparation of the cash flow projections starts with a serious consideration for the basic assumptions underlying

these projections. These assumptions are either passed by the managing director (MD) or prepared by the financial analyst, and are rigorously considered. These assumptions are concentrated on the Sugar Sales Agreement with the Sudan Government (as will be discussed later), the present and the expected international prices of sugar, the production capacity, the contractual and loan agreements with other parties, the expected inflation rates, and the expected fluctuations in the exchange rate of the US \$ with respect to the Sudanese pound.

The cash flow projections basically show sources of cash such as export sugar revenues, equity, domestic revenue, conversion of local currency into hard currency, and the loan drawdowns from the different lenders. On the other side they show the uses of cash such as loan repayments, capital and operating expenditure and current assets. All these estimates are drawn in US \$. Once the cash flow projections estimated, the next step is to present and defend them before the KSC board of directors. According to the financial analyst, this is not at all easy, and it takes hours and sometimes days to convince the directors and approve the projections.

"It takes hours before passing those projections. Discussion might even extend to the early hours of the next day".

In fact I got the impression that preparing the cash flow projections is the most important work done by both the financial controller and the financial analyst. When I complained to a friend in the KSC about failure to make an appointment with the financial controller, his response seemed to have sympathy for the controller:

"He has every right to break his promises. He is busy all the time preparing the cash flow estimates. He even used to come to his office in the evenings to work peacefully".

The latest cash flow projections were prepared last November 1984,

and they covered the period 1985-1990. The KSC management seemed to emphasize the importance of this planning technique. The MD, for instance, made it clear that:

"The cash flow forecast is the backbone and the corner stone in the decision-making process. The Arab investors are very interested to know when they are going to receive dividends. So they consider it seriously and ask about every bit and piece of information".

Consequently, as the KSC management appreciated the importance of these projections it was ready to invest generously in preparing this important planning device. A personal IBM machine was acquired specially to help prepare and amend the estimates of the cash flow projections. The financial analyst argued in this respect:

"We do some sort of sensitivity analysis by virtue of this machine. Also we could amend the cash flow forecasts when significant changes in the production levels, the selling prices, or the exchange rate of the US \$ occur".

However, despite the fact that considerable physical and human resources are invested in preparing these estimates, the cash flow projections are subject to continuous review to the extent that one could question whether or not it has long-term significance. For instance, the latest cash flow projections were reviewed twice since prepared last November 1984, due to the devaluation of the Sudanese pound and the huge increases in the oil prices. The financial analyst argued in this respect that:

"The cash flow projections could not remain 100% accurate for seven days. However, minor changes are ignored. Major changes affect the cash flow estimates, as the assumptions underlying the projections change both internally and externally. It is a dynamic process".

The assistant MD made similar points:

"We rely on it (cash flow) heavily. Our environment is totally unpredictable. The revision process is a continuous process".

Based on the assumptions underlying the cash flow projections and



their estimates, the conventional financial statements, that is, the Balance Sheet and the Profit and Loss Account, are prepared for the same period covered by the cash flow forecasts. These financial statements are meant to provide information to the KSC shareholders, foreign lenders, and contractors about the potential of the company six years ahead.

Another long-term planning device is a five-year capital expenditure budget. This is a formal plan which shows which fixed assets are to be acquired in the next five years, and how much to spend on yearly basis. Classification and methods of analysis of capital projects will be discussed later. This budget is refined and reviewed on annual basis.

#### 3.2.1.2 Short-term Budgets

##### (1) The Operating Budgets

The operating budgets are formal plans developed by KSC management to plan the cash requirements for the coming year, control the operating expenses and coordinate the utilization of the resources available to the company. The development of the operating budgets is a participatory effort involving the entire KSC management team. The operating budgets are prepared on the basis of responsibility. Moreover, the operating budgets are prepared by cost centre and by subaccountant classifications within each cost centre. Therefore, the operating budgets are prepared and evaluated from the bottom of the organization right up to the top of the KSC. The operating budgets, like the cash flow projections, are based on certain assumptions regarding the levels of production, availability of materials, and the current cost estimates for labour and other expenses. The operating budgets are also based on past experience.

The following two types of the operating budgets could be identified in the KSC:

A - The Fixed Operating Budget

At the beginning of each financial year an annual fixed operating budget is prepared. The main assumptions or activity levels used in preparing the budget include the expected production figures, metric tons of cane to be harvested, area to be harvested in terms of feddans, area under cane at the end of the year in terms of feddans, the expected average yield of cane per feddan harvested, and the expected average yield of sugar (recovery percentage) per ton of cane. Normally, the fixed operating budget begins with a brief summary for the company as a whole. This budget summary mainly consists of two parts. The first part shows the expected production figures in metric tons as determined by the industrial engineers and the production manager. This part also shows the operating revenues, which is merely the expected production figures times a provisional price. In this respect, two types of sales are distinguished, that is, export and local sales, as will be explained later. The sales budget is based on the assumption that all sugar to be produced is to be sold. This is because the production of sugar is far less than consumption in the Sudan. The second part of the budget summary shows the estimated operating expenses division-wise, classified as fixed and variable, for the three cost items, that is, payroll (labour), materials, and other expenses (overheads).

The budget summary of the fixed operating budget then ends with the operating surplus for the company as a whole, before the depreciation and interest charges are deducted. After deducting these cost items, the budget summary then shows the operating budget deficit or surplus. For many reasons to be explained later, the fixed operating budget, for the last four years when the KSC started its commercial operations, shows huge deficits. This budget summary shows two columns for the two parts: one column shows the actuals for the last year, and the other shows the

estimation for the current year. Following this budget summary, the fixed operating budget then shows a detailed breakdown for the operating expenses division-wise. In addition, this breakdown shows the targets of each division, the manpower in each division classified as either Sudanese or expatriates, the current operating costs of each division compared with the actual figures for the last year and the reasons for the increase or decrease of the budget expenditure. Needless to say, the KSC top management has emphasized the importance of the fixed operating budget as a planning tool. Its use for control and performance evaluation purposes will be discussed later. Both the MD and his assistant maintained that:

"This budget is used to plan the company's financial requirements for the current year and to coordinate resources".

"The budget shows the expected operating deficit and how and where to cut expenditure".

#### B - The Flexible Operating Budget

Once production starts, actual activities, that is, actual cane harvested and transported and the actual sugar produced, are used to prepare flexible budgets. Each month, these actual activities are multiplied by the standard costs for three cost elements, that is payroll, materials, and other expenses. The standard costs are estimated by the industrial engineers of the Engineering and Construction Department. These standard costs, however, are established only for two divisions, that is, the Cane Crop Coordination and the Sugar Production Divisions. This type of budgeting is used to monitor and control the operating performance and hold the individual managers accountable for their performance. Flexible budgets, furthermore, reflect the impact of changes in the timing and/or levels of production on the operating costs. The Chief Accountant emphasized the importance of the flexible budgets in the company on the basis that:

"No matter how valid the original budgets are, certain situations will arise during the year that were not originally foreseen. The operating budgets must be updated for these changes so that the performance can be measured and adequately controlled".

(2) The Annual Capital Budget

The second type of the short-term budgets in the KSC is the annual capital budget. This budget is a formal plan for the annual purchases of capital assets by the KSC. It is the process of determining both how much to spend on capital assets and which assets are to be acquired by the KSC during the next financial year. The classifications and methods of analysis for each type of capital project will be discussed later.

The process of developing the fixed operating and the annual capital budgets is a participatory effort in which the KSC management, at different levels, is actively involved. The process of estimating and setting up these budgets could be described in the following steps:

- (i) Development of the budget key assumptions regarding production levels and the availability of resources. This is done by the Budget Committee which considers all factors influencing operations during the next year such as equipment availability, manpower, fuel, water, weather, crop conditions, and general economic and political conditions,
- (ii) Each cost centre head receives a budget preparation package which contains a blank Annual Budget Preparation Form and a list of assumptions. Once all support information has been collected, the cost centre head is ready to complete the cost centre budget,
- (iii) Following this, all the cost centre budgets are to be submitted by the Department Heads by July 1st. The department managers, with the assistance from the divisional Cost and Management Accountants (CMAs), review each cost centre budget for accuracy and completeness,

- (iv) After completion of the review, the department manager signs each cost centre budget evidencing his approval and submits the individual cost centre budgets to the divisional general managers by July 15th,
- (v) The divisional general managers perform a general review of the individual budgets before submitting them to the Cost and Budget Section, of the Accounting Department,
- (vi) Upon the receipt of the cost centre budgets by the Cost and Budget Section, it:
  - Reviews each cost centre budget for mathematical accuracy and completeness,
  - Prepares a summary budget, both division and department-wise,
  - Submits summary budgets and the supporting documents to the financial controller for review and approval. Then all the departmental and divisional budgets and the supporting documents are submitted to the Budget Committee by August 15th,
- (vii) The Budget Committee, together with the MD, meet by that date to evaluate the individual cost centre budget proposals,
- (viii) The Data Processing Department receives the approved budget proposals from the Committee and immediately enters the data. The computer then generates detailed cost centre budgets, which are submitted to the Cost and Budget Section, which in turn prepares a special report to the Board of Directors outlining the major operational constraints, defining the production targets, the established cash requirements, and the detailed operating budgets, and
- (ix) Finally, based on the management's proposals and the overall company policies as established by the Board, the detailed budgets are evaluated, and if found satisfactory and realistic, are approved by the

Board of Directors. Once approved, the operating and capital budgets become the official KSC planning tools for the next year. The Data Processing Department is then instructed to prepare sufficient copies for all the levels of management as an authorization and 'a go ahead' sign.

### 3.2.2 Cost Accounting and Standard Costing Systems

Another distinctive feature of the KSC is that it has a highly sophisticated cost accounting system. Accordingly, KSC is subdivided into 146 cost centres. The cost accounting system is fully computerized, and it is the responsibility of the Data Processing Department to record, accumulate and produce the necessary cost data for the management purposes. The Cost and Budget Section, on the other hand, is responsible for allocating costs incurred to the appropriate cost category and cost centre. Normally, when the operations start, the main three cost items, that is, payroll, materials, and other expenses, are allocated by the Budget and Cost Section as follows:

- (1) Payroll. The KSC employees are classified into four major groups: that is, senior management, expatriates, staff and workers. Each senior manager, expatriate and staff employee is preassigned to a specific cost centre. Workers, on the other hand, may be assigned to several cost centres in one pay period. The senior management payroll is prepared manually. However, journal vouchers must be prepared each month to record the total senior management payroll in the nominal ledger and to allocate direct payroll to the preassigned cost centres. Both the expatriate and staff payroll are computerized. Each month the payroll is processed based on the salary master file information and any temporary amendments that have been submitted. The workers payroll is also computerized. However, workers are paid

on an hourly and daily basis and therefore must submit time sheets which record straight time, overtime allowances and deductions. In addition, a cost allocation sheet is maintained, which records the straight time that is worked in each cost centre by day. At the end of the payroll period, both the time sheets and the cost allocation sheets are submitted to the Data Processing Department. Payroll reports are generated for distribution of the workers' pay, and direct payroll and associated benefits are allocated to the appropriate cost centres.

- (2) Materials. All materials used in the operation of the KSC must be allocated to the cost centre using the material. Materials may be charged directly to any operating cost centre, to delayed use inventory, or to capital projects. As with the recording of payroll costs, there is no interface between the computerized cost system and the computerized nominal ledger. Therefore, journal vouchers must be prepared each month to record the total amount of materials issued to user cost centres by Stores Issue Vouchers (SIV).
- (3) Other Expenses (Overheads). The other expenses include services provided by outsiders, general administrative costs, finance charges, legal and audit fees, and other miscellaneous expenses which do not fall within the explicit categories of payroll or materials. All other expenses are recorded by a Journal Voucher and posted to the nominal ledger. The journal entries are then merged with the cost system and are reflected in the cost centre reports.

These three cost elements are separated into variable and fixed parts in two divisions only, that is, the Cane Crop Coordination and Sugar Production Divisions. The obvious reason for this is that, as the chief Cost and Budget Accountant put it:

"In an industry like sugar, 80% of costs are fixed in the sense that you incur them whether you produce sugar or not".

However, this limited separation of costs into variable and fixed elements is extremely important in the KSC. The obvious reason for this is that the variable cost element for the maximum production capacity is a major component of the formula according to which the prices of the domestic sales are to be fixed, as will be discussed later.

According to the Chief Accountant, the objectives of establishing such an advanced cost accounting system are two-fold. First, the introduction of procedures to enable the KSC to monitor and control the costs of operations and capital projects. This is especially important as KSC is launching an austerity programme, which was introduced recently to minimize the high operating costs and the huge losses which the KSC incurred since its inception in 1980. With the help of the computer services, clarity of lines of authority and responsibility and the establishment of the cost accounting system, tight cost control is exercised. The second objective is to maintain suitable cost information to be used in negotiating the prices of domestic sugar sales with the Government of Sudan, as will be discussed in more detail later.

Furthermore, the standard costing systems are used in KSC for two divisions, that is, the Cane Crop Coordination and the Sugar Production Divisions. Setting the standard costs and their review is the responsibility of the Industrial Engineering Department, which is part of the Engineering and Construction Department. The standard costs are established for the three cost items in the two divisions and are used to prepare both the flexible and fixed operating budgets, evaluate performance and control costs.

Finally, a major product of the cost accounting system is the variance



analysis, which is conducted on a monthly basis. As will be discussed later, an expense element-wise variance analysis is conducted for each division, subdivision, and department, that is, for all the cost centres in these levels.

### 3.2.3 The Internal Audit Department

The internal audit department consists of a chief internal auditor, who is a Scottish chartered accountant, a senior internal auditor and a audit clerk. To perform his duties, the chief internal auditor normally prepares a two-months audit programme which is intended to cover some divisions and departments. The chief internal auditor identified two main objectives for the internal audit department. These are as follows:

- (1) To protect the company's assets by ensuring strict adherence to the established policies and procedures of the company and the existence of proper accounting records for the company's fixed assets. To do so, an audit test and a systems review techniques are applied. Through the system review, the internal auditor, and by means of a flow chart, analyzed transactions of a certain division or department to check its conformity to the established policies and procedures manuals as discussed earlier, and confirm the physical existence of the fixed assets, and
- (2) To promote operational efficiency of the KSC. This is achieved through what is termed an efficiency audit. Using the normal standards established by the industrial engineers (for instance the amount of oil to be consumed by a light Suzuki vehicle in a certain distance, together with the other standards established for the Cane Crop Coordination and Sugar Production Divisions) the internal auditor investigates the efficiency with which the company resources are utilized. The results and recommendations emerging from these

audits are submitted to the MD. The chief internal auditor attributed this to their belief that:

"The idea of being independent is to make sure that all other divisions and departments including the Finance Division, conform to the company policies and procedures. This is because we try to avoid the MD the trouble of getting involved in the details of the daily operations. He gives us authority to do it for him".

The chief internal auditor, on the other hand, identified two problems that the department faces. The first problem is the shortage of the staff, which is going to be solved by recruiting more qualified and graduate accountants. The second problem is that there is no direct contact between the internal audit department and the Board of Directors. To solve this problem, an "Audit Committee of the Board" is about to be formed. In addition to the internal audit department, KSC is also externally-audited by both Hamadto and Company (a Sudanese accounting firm) and Price Waterhouse (a leading British accounting firm).

#### 3.2.4 Utilization of Computers in KSC

Computer technology is widely used and in various activities in KSC. Thus the microcomputers in KSC are effectively used to monitor cane irrigation plans, to produce the cane production and water statistics, to print out the sugar production statistics and the related graphs, and to control the process of handling services (greasing, washing and fueling) of the vast number of the KSC light and heavy vehicles. Moreover, the microcomputers are used to control inventory. Due to the vast number of inventory items in the KSC (metal sheets, sugar bags, fuel, .. etc.) the use of microcomputers seems to be inevitable. Thus, the computerized inventory control system determines the minimum and maximum balances of the different items to be stored as stocks. At the end of each month, the microcomputers produce a monthly printout which shows the receipts and issues

of inventory during the month, the letters of credit opened to procure inventory, and the inventory in transit and the current balances for the different inventory items.

Apart from these microcomputers, a separate set of computers is maintained to handle the different accounting activities. As the Data Processing Department is part of the Finance Division, the computer is fully utilized to maintain the cost accounting records and the general ledger, to print out the monthly cost control reports, in addition to the payroll as we have already discussed.

### 3.3 Management Accounting Services to KSC Management

Investigations in KSC showed that the Accounting Department produces a variety of accounting reports on monthly, quarterly and annual bases. These reports are submitted to managers at the different levels in the KSC. The Chief Accountant believes that through these accounting reports,

"Performance may be evaluated against what was anticipated and variances can be investigated to determine the cause of the change".

Following is a brief description of these accounting reports.

#### 3.3.1 The Cost Centre Report

This report is produced by the computer on a monthly basis. The report compares on monthly and year-to-date bases actual amounts to budgeted amounts. The actual cost for each subaccount is compared against the budgeted amount based on the actual activity, and the variance is shown for both the monthly and the year-to-date costs. This report is sent to all the management levels including the MD and his assistant, the divisional managers, the subdivisional managers, the department managers and the cost centre heads. According to KSC policy, it is the responsibility of those managers - upon the receipt of this report - to conduct

a detailed evaluation of their cost centre report, performing the following activities:

- Examine the prior month's report for major variances and to ascertain that these variances have been corrected,
- Examine the current month centre report by analyzing each nominal expense subtotal. The subtotals with a variance of  $\pm 5\%$  or less do not require further analysis,
- Analyze those nominal subaccount totals that have a variance greater than  $\pm 5\%$ . For each sub-account that contributes to the variance, the cause should be determined.

A version of this report is prepared and submitted to the MD and his assistant on a monthly basis. It is a company summary which incorporates the cost centre variance reports. This report shows planned and actual expenditure for the company as a whole by means of a graphical presentation which is supported by a narrative explanation. This report briefs the MD and his assistant about the performance of the company on a monthly basis, and helps them to report to the Board of Directors should a meeting be scheduled for that month.

### 3.3.2 Capital Projects Cost Report

The capital projects cost report is similar to the cost centre report. It is produced on monthly basis and accumulates actual costs incurred and compare these costs against the budgeted ones. Therefore, this report shows actual and budgeted capital expenditures. Like the cost centre report, these reports show a detailed variance analysis for direct labour, direct materials and other expenses (overheads). Again, the report is submitted to the divisional, subdivisional, department and cost centre managers, in addition to the MD and his assistant. It is the

responsibility of the different management levels to evaluate each of the cost categories in terms of the costs expended and the percentage of completion of the project. Moreover, it is the policy of the KSC that, where the percentage of total costs expended exceed the estimated percentage of completion by more than 5%, managers should investigate reasons for the potential cost overruns. Furthermore, problems which resulted in delaying capital projects should be investigated as well.

Certainly, both the cost centre and the capital projects cost reports are produced with a view to help managers to evaluate their performance and make sure that they did not exceed their budget during the month. To achieve this objective, a Cost and Management Accountant (CMA) is attached to each division to:

- Identify the magnitude of adverse variances,
- Report these variances and explain them to managers in a narrative form,
- Help managers to understand the contents of these reports, and
- Liase with managers in estimating their budgets.

It is beyond doubt, however, that the divisionalization of the accounting function in this limited sense has facilitated good channels of communication between the divisional managers and the divisional cost and management accountants. The following statements by the divisional managers are illustrative.

"Go and see our division accountant. He will tell you a lot about it".

"It was difficult to understand the accounting terminology at the beginning. Our accountant used to explain it to us".

"I receive narrative reports interpreting the accounting figures".  
and that:

"I faced a problem in understanding the accounting information, but I was helped by the divisional cost accountant".

### 3.3.3 Management Accounts

Management Accounts is a quarterly report which provides the Board of Directors with a comparative funds statement and supporting commentary. The report is prepared by the Chief Accountant in US\$ and Sudanese pounds as at the end of each quarter. The management accounts incorporates a cumulative funds statement. Actual cash flow amounts are reported for the current quarter and for the period since the approval of the cash flow projections. For comparative purposes, cash flows projected in the cash flow projections are reported for the same period. Variances are computed as well.

Another section of the management accounts shows production statistics in terms of actual and budgeted amounts. The production statistics includes cane harvested and transported in metric tons, the sugar recovery percentage, area harvested in feddans, yield of cane per area and feddan.

Moreover, management accounts provides cost information subdivided by the major divisions about the operating budget for the same quarter and year-to-date. A detailed variance analysis for each division is conducted as well. A comparative graph is drawn to supplement this cost information. Another part of the management accounts produces a detailed cost report for the capital projects. Actual costs are compared with the budgeted costs for each project and the variances are calculated. Needless to say, management accounts are mainly prepared for the directors to evaluate the company's performance and discuss the operating problems that encountered the company during the last quarter and the results of negotiations with the Government with respect to giving KSC some concessions and opening letters of credit by Bank of Sudan.

#### 3.3.4 The Annual Report and Accounts

This report, as its name implies, is produced annually. It includes the audited accounts - basically the Balance Sheet and Profit and Loss Account, and related schedules - notes to these accounts as regards the accounting policies with respect to the evaluation of stocks and fixed assets, the depreciation methods used, and the currency translation methods used to convert the value of monetary and nonmonetary assets into US\$. This in addition to the production figures for the financial year being compared with those for the last year. The Profit and Loss Account for the year ended 30 September 1983, showed a total loss for the year of Ls\* 21,779,000.00 million.

#### 3.4 Management's Reliance on Accounting Information

Our previous discussion suggests that almost all the operating managers at different levels received various combinations of accounting reports. The divisional, departmental and cost centre managers, therefore, and whenever asked about whether or not they receive any accounting reports, show the researcher a computer printout showing the cost centre and capital projects reports. It is evident that these managers do use these reports to ensure that they are operating within the budget limits, to investigate any adverse variances, and to evaluate performance. As we have already mentioned, a Cost and Management Accountant (CMA) is attached to each division to ensure effective use of these reports for performance evaluation and tight cost control imposed by the Board as part of its "austerity measures". The following answers, which are typical of many, confirm these conclusions.

"You see these sheets, they tell you how much you spent last month, and how much you are supposed to spend".

\* Ls = Sudanese Pounds

"I use these reports to keep the budget under control".

"I use the accounting information to compare the expenditure with the budgeted estimates, and to investigate reasons in case of considerable discrepancies".

"I use them (accounting reports) to make sure that I am operating within the approved budget".

and:

"To control the execution of the budget so as to act within its boundaries".

At the top management level adverse variances receive a special attention. The MD made it clear that he has no time to investigate every bits and pieces of information. However, he emphasized the fact that significant adverse variances should be investigated thoroughly and immediately.

"You see, I emphasize two important principles: hiring and firing, and management by exception. The Sudanese managers do not like the first principle, and they want a lot of information even if they do not need it".

He then cited an example in which the Cane Production manager exceeded his budget by a significant amount in one month. Immediately an inquiry was set up. Later these variances were attributed to the increase of the cost of herbicides as part of an emergency weed control programme launched that month.

Furthermore, the MD stresses the importance of the final accounts for evaluating the overall performance of the company, and considering means and ways of its improvement. For instance, the MD and his assistant referred to the impact of the sharp increase in fuel prices and salaries on the overall performance of the company. Both of them argued respectively:

"As these factors are largely outside the KSC control, the emphasis will require to be on achieving cost savings by way of improving operational efficiency across the Board".

"Although in the short to medium-term, the upward pressure on the Sudanese salary scales will have an adverse effect on operational



profitability, the ultimate benefits of a realistic approach to the problem will be obvious as a competitive salary structure is a prerequisite for an acceptable level of trained staff turnover".

Members of the Board of Directors, on the other hand, rely heavily on the quarterly and annual accounting reports for evaluating the performance of the company and to discuss the outstanding issues. The management accounts report, which is produced on quarterly basis, provides a comprehensive accounting and non accounting information as we have already discussed. Though we could not interview many members of the Board due to the difficulty of making an appointment, a statement by a member of the Board indicates how the other directors rely on these accounting reports for control purposes.

"Because all operations of the company are ultimately expressed in terms of money, they (other directors) rely completely on financial information to judge the performance of the company during the quarter. They want to know everything at their fingers tip".

Apart from relying on these accounting reports to control the operations of the company, the KSC management has adopted a highly sophisticated communications system. This includes a network of telephones, moving and fixed radio sets, and an excellent telex services. This system is specially designed to link the site at Sufeya (where the farm and the mill are situated) with the company headquarters at Khartoum, the Port Sudan Office, and the London Office. In addition, this system is effectively used to keep management well-informed about the problems in the company. This is exceptionally important as the MD maintains that he:

"Must be concerned with the details of the operating problems of the company".

During our stay there, cane was set on fire before the fixed date and caused a lot of damage. The news of this fire soon spread very quickly by virtue of this communications system. Moreover, the operating

managers at the divisional and departmental levels used to tour the factory and the farm on daily basis. The sugar production manager, for instance, has got his office directly attached to the factory. The KTC chairman used to break his appointments with the researcher. When we complained to his secretary, he seemed to have no sympathy.

"What can I do? He is a practical man".

#### 3.4.1 Managerial Decisions and Accounting Services

In this section, we are going to discuss some of the most important decisions in the KSC with particular emphasis on the role of accounting and accountants in these decision areas.

##### 3.4.1.1 Increasing the Production Capacity

Since the KSC started production in March 1980, the production capacity is then annually increased. In 1982/83 season, the production capacity was increased to 229,000 Metric Tons (MT), and in this season the budgeted production figure was increased up to 265,000 MT. It is expected that the KSC will reach its maximum production capacity of 300,000 MT by the 1984/85 season, when the estate will be fully planted. The decision to increase the production capacity is a Board decision.

The importance of this decision stems from its impact on estimating the different budgets (both operating and capital), the cash flow projections, and consequently the other major decisions such as procurement of raw materials, investment and financing. Therefore, the Board of Directors usually asks the financial controller to prepare cost studies showing the impact of increasing production on revenues and operating costs. Rigorous cost-volume-profit analysis is undertaken. Emphasizing the need for this study, the MD made it clear that:

"The decision of increasing production targets is not made in isolation of cost considerations".

However, this study is only a tentative attempt to study the relationships between costs, profits and volume. This is because the government reserves the ultimate authority to determine the price of sugar according to the Sugar Sales Agreement, and consequently, as the Chief Accountant put it,

"It is only the government which decides where we could break even".

#### 3.4.1.2 The Investment Decision

The investment decision is also an important Board decision since it normally involves huge amounts of money, mostly in hard currency. According to the financial controller's statements and his job description, the financial appraisal of investments is his responsibility.

According to the financial controller, the establishment of the Sufeya Works is the most important decision ever made in the KSC. The Sufeya Works are to be established on the site to produce locally some of the light spare parts for the mill instead of importing them. It is also expected that the other publicly-owned sugar factories will benefit from this project as well. The financial controller conducted a feasibility study according to which the project is economically viable as its internal rate of return is acceptable. According to the financial controller, the different capital projects and their methods of analysis which are adopted by the company are as follows:

<u>Classification of Capital Projects</u>	<u>Methods of Analysis</u>
(1) Replacement - Maintenance of Production	* Replacement Cost Analysis
(2) Replacement - Cost Reduction	* Incremental Cost Analysis
(3) Expansion - Existing and New	* Internal Rate of Return (IRR),
(4) Safety on Environmental Products	* Compliance Analysis,
(5) Safety on Environment	* Subjective Factor Analysis.

#### Financing of Capital Projects

Because most of the equipment and machinery needed for the works are

to be imported, hard currency has to be made available for this and other purposes. As a result of the hard currency shortage in the country, an important means of financing capital projects in the KSC is through raising equity funds. In January 1983, the KSC shareholders decided to raise US\$ 180 million through issuing more preferred shares. According to one Sudanese director, some Arab shareholders are very dissatisfied with the performance of the KSC, because of the huge losses incurred so far. Therefore, they are reluctant to commit any further funds in the company.

"The Arab investors are very dissatisfied. Some of them refuse to commit any further funds in the company, and still others are even ready to transfer their shares to potential investors".

Therefore, KSC found it a bit difficult to raise hard currency through increasing equity. During our visits to the company, both the financial controller and the financial analyst were on an official mission to Kuwait to meet some of the shareholders there. When we tried to make an appointment with the financial controller, he refused saying that it would not be possible to meet him for the next two weeks.

"The reason is that I am leaving for Kuwait next Monday to explain our prospective financial position till 1990. Meanwhile, I will be busy meeting the managing director and the financial analyst to discuss what we are supposed to do".

Apparently, therefore, presenting, explaining and defending the cash flow projections and other related financial statements is the major role of the financial controller to solve the hard currency problems of KSC. He made it clear that his role in this respect is only advisory.

"We can prepare and explain the information. That is all we can do".

"This business trip is directly related to the payment of the three tranches of the US\$ 180 million. It took us one week to present and defend the cash forecasts".

#### 3.4.1.3 The Pricing Decision

The pricing decision is one of the most important decisions in KSC.

The sugar price is fixed in accordance with the provisions of the "Sugar Sales Agreement" between the KSC and the Government of The Democratic Republic of Sudan (GDRS) dated 27th of May 1975. This agreement covered a variety of areas including allocation of sales to internal and external markets, the price-fixing process, delivery of sugar, payment of sugar prices by the GDRS, sales of by-products and restrictions on import and export of sugar. For our purposes, we will concentrate on the pricing phase of the agreement and the role of the financial controller in the price-setting process. According to the agreement, the maximum KSC production capacity is 300,000 MT per year. By virtue of the agreement, the first 150,000 MT are to be sold to GDRS as domestic sales, being settled in local currency. The other 150,000 MT are to be sold to the GDRS as export sales and is to be settled in hard currency, that is, US\$. This is because these amounts were originally intended for export, pending completion of the rehabilitation programme of the government-owned sugar factories according to which Sudan will reach self-sufficiency. In the following paragraphs, we will discuss in some detail the process of price-fixing of both domestic and export sugar sales.

The agreement provided that the KSC and GDRS should fix and enforce an ex-mill price for the company sugar production allocated to the internal market in the following manner:

- (i) The internal ex-mill price of all white granulated sugar sold by the KSC to the GDRS according to this agreement shall be Ls 55 (that is, fifty five Sudanese pound per metric ton) per metric ton, provided that such price shall be subject to increase upon the giving of a written notification of such an increase by KSC to the GDRS.
- (ii) The "Sugar Costs Index" as at 20th July 1973 has been established and agreed upon by the two parties. These estimates were originally

drawn by Lonrho Limited for the expected production costs for the maximum production capacity of 300,000 MTs. This Cost Index basically contains three cost elements as follows:

- A - Salaries and Wages. This shows the total estimated labour expenditure including management staff, permanent employees, operators and drivers, seasonal labour and workshop labour,
- B - Materials. Which includes elements such as diesel, lubricants, fuel oil, tyres, spares, fertilizers, lime, bags, pesticides and others, and
- C - Overheads.

According to these calculations, the 'Sugar Costs Index' shows a total of Ls 8,240,200.00 as the expected production costs of 300,000 MTs. Accordingly, if at any time the Sugar Costs Index has increased over the level of that Index estimated on the 20th July, 1973 in respect of any of the cost items comprised therein, the KSC shall notify the GDRS. Consequently, the price of domestic sugar sales shall be increased with effect from the date of the written notification by an amount calculated by multiplying the current basic price of sugar payable by the GDRS by the ratio that the increase in the level of the Sugar Costs Index bears to the previous level of that Index - all being subject to negotiation and final approval by GDRS. Therefore, the price per MT payable for domestic sugar sales according to this agreement, is to be fixed according to the following formula:

Ex-mill price/MT of white sugar:

$$= \text{Current Price} + \text{Current Price} \times \left[ \frac{\Delta \text{in Expenditure}}{\text{Sugar Costs Index}} \right]$$

$\Delta$  in Expenditure = Actual Operating Costs - Sugar Costs Index.

To explain how the price is fixed by this formula, let us assume that the

operating costs increased in one year by Ls 188,700.00, then the Ex-mill price is

$$55 + 55 \times \left[ \frac{188.7}{8240.2} \right] = 55 + 1.26 = \text{Ls } 56.26 / \text{MT of sugar}$$

On the basis of this formula, the price is negotiated with the GDRS by the Price Committee, which is a board committee. The use of committees in the decision-making is quite fashionable in the KSC, as one director put it:

"In the past there used to be a committee for each decision".

To make sure that the price is fixed on pure commercial basis, the Price Committee does not include any Sudanese directors. The financial analyst stated that:

"It is thought that the Sudanese nationals may be in favour of lower prices".

The financial controller, though he is not a director, nevertheless he is a member of this committee. When asked about the reason for his inclusion in the committee, the MD argued that:

"He is the right person to talk about it".

Thus, the role of the financial controller in the committee is to present, explain, and defend the cost information compiled by his department (the Budget and Cost Section), and upon which the company proposes the ex-mill price (see the job description of the financial controller at the end of the case study). The process of negotiating and fixing the price with the GDRS is not an easy ride because of the "conflict of interest" between the two parties. The GDRS, on the one hand, wants to fix as low prices as possible to reduce the amounts of subsidies allotted to this strategic and widely-consumed commodity, with a view to conform to the policies of the International Monetary Fund (IMF) to reduce the government

expenditure. The KSC management, on the other hand, is keen to charge as high prices as possible to cover its high operating costs and reduce losses which are partly attributed to the employment of expatriates, who are partly paid in hard currency. The MD, referring to this situation arguing that:

"Price-fixing is not an easy process at all. This is because there is a conflict of interest between the company and the government".

The agreement also explains in detail the procedures to be followed in order to fix the price of the export sugar sales, paid in hard currency. Accordingly, the price formula is composed of the following items:

- (i) The daily London market prices, published by F.O. Light is to be used to fix prices per ton of white granulated sugar,
- (ii) The monthly estimate of freight per ton from a North European Port to Port Sudan, to be assessed by agreement between two freight brokers, one to be appointed by the GDRS, and the other by the KSC,
- (iii) The actual port and landing charges per ton as at Port Sudan,
- (iv) The cost of insurance per ton from port of loading to Rabak (the site of the KSC) assessed from a quotation received from the company's insurance brokers, and
- (v) The transport charge per ton from Port Sudan to Rabak (the site) at the rail rate applicable to the imported sugar.

Since the cost items (iii), (iv) and (v) are normally paid in Sudanese pounds, it is agreed that these amounts are to be converted into dollars using the official exchange rate prevailing at the time of negotiating prices. In view of these cost items, that is, (i), (ii), (iii), (iv) and (v), the export sugar sales price is fixed according to the following formula:



Price per ton of sugar (export sales):

$$\begin{array}{l} = \text{Daily London Market Price} + \left[ \begin{array}{l} \text{Overseas Freight and Insurance Charges} \\ + \text{Ports Charges} + \text{Home Freight and} \\ \text{Insurance Charges from Port Sudan to} \\ \text{Rabak (the KSC site)} \end{array} \right] \end{array}$$

In other words, the GDRS pays the same price as if the sugar is imported from abroad. As far as the role of the financial controller in this decision is concerned, he has no role whatsoever to play. Instead, it is the Marketing Department that compiles the relevant information of the cost items (i) through (v) from the specialized international publications and other sources. It is also the role of the Marketing Department Manager to present, explain and defend the cost information of the various cost items of the formula. It is worth mentioning that the establishment of the Marketing Department emerged as a result of anticipation of large scale physical exportation of sugar. The Marketing Department conducted various market surveys to export sugar to the neighbouring Arab countries, and the possibility of obtaining quotas for the export of raw sugar at advantageous prices to the EEC countries and the USA.

### 3.5 The KSC Management

As the organization chart of the KSC shows, the Board of Directors is the top authority which formulates the company's policies. It consists of Sudanese nationals, Arabs and even some foreign directors. The MD stated in this respect that:

"The Board is a combination of qualified directors in areas of economics, finance, agriculture and engineering".

Therefore, the Board of Directors represents various areas of specialization. According to the MD, who is a Sudanese, some Arab shareholders even appoint foreigners as their representatives in the Board. The

Kuwaiti shareholders, for instance, appointed an experienced American technologist in the field of planting and manufacturing of sugar cane. The KSC MD is a graduate of economics from the University of Khartoum and did his Msc in economic studies in Glasgow University, in the UK. The assistant MD, who is also a Sudanese, is a graduate of business administration, and did his Diploma and Msc in Leeds University, in the UK.

At the middle management level, many managers interviewed attended short-term training courses designed during the off-season. These courses are arranged by the Personnel Training Centre, one of the KSC departments. According to the department manager, they arrange summer courses on the following issues:

- Managerial leadership and the art of decision-making,
- Delegation of authority,
- Elementary book-keeping and costing, and
- Agricultural Economics and Farm Management.

This in addition to the overseas training in some areas such as quality controls and microcomputers. The KSC also makes use of the specialized courses offered by the Sudanese Training Centres. Examples of this is the placement of some engineers on the Young Executives Programme (YEP), arranged by the Management Development Centre (MDC).

On the other hand, most of the KSC top managers are well experienced in the economic and finance matters. The MD, for instance, is an experienced economist who worked for a long time for the Ministry of Finance and Economic Planning, and used to be a state minister for finance. The assistant MD, on the other hand, worked for a long time as an economic adviser with the Ministry of Trade and Supply. Moreover, most of the foreign expatriates demonstrated long experiences with some leading British

and American firms; for instance:

- The chairman of the KTC used to work with Tate and Lyle and Arkel International,
- Both the Chief internal auditor and Chief Accountant used to work with Price Waterhouse and Austin, and
- The sugar production manager, is a Scottish Chartered engineer who used to work with different British firms.

Finally, it is worth mentioning that the KSC management, and at different levels, attached higher importance to the role of accounting data and the services that the divisional Cost and Management Accountants, the Chief Accountant, the financial analyst and the financial controller could render. The MD, for instance, maintained that:

"The financial analyst and the financial controller provide valuable services in this company".

When asked about how the financial controller could help top management in solving the problems of hard currency, the assistant MD made similar comments.

"Yes, he is playing a vital role in this respect. He is doing this by identifying the finance deficit, by explaining how to rationalize expenditure, and by convincing the shareholders about the company's potential".

Another Sudanese director, when asked about whether the financial controller has any role to play in solving the hard currency problem, he argued:

"Yes, he has got to identify the problem and how to solve it. He has to present the possible options to the Board".

The opinions of some other middle managers on the importance of accounting and accountants, was solicited as well, and similar responses were received. For instance, the Engineering and Construction Department

manager made it clear that:

"Any company that aims to make profits, must have an accounting department".

For cross-checking purposes, the opinions of the financial controller on the importance which the KSC management attaches to the role of accounting and accountants in management, he indicated that it is considered as essential.

"It is not a matter of having an advanced management accounting and planning systems. It is the question of management backing for these systems, taking into consideration the advanced technology employed and the complicated structure of the company".

As it is the general case in the KSC, the job description of the financial controller assigns both adhoc and routine responsibilities to the position. The detailed job description divides the role of financial controller into:

#### I Primary Purpose of The Position

- (A) Through the introduction and maintenance of an effective financial planning and control system, to assist the management of the company to attain maximum utilization of its resources.
- (B) Protect the assets of the company at all times by ensuring the existence and utilization of proper accounting and reporting procedures. Fulfil statutory accounting obligations as required by the Company Law. These broad purposes of the controllership function are subdivided into the following responsibilities.

#### II Main Responsibilities of the Position

- (A) Development, implementation and operation of financial planning and control systems basically within the framework of annual operating plans for the company and its divisions. Medium and long-range plans are set up when required.

- (B) Introduction of procedures to enable Kenana to monitor and control the costs of the initial development and construction of the factory and the estate.
- (C) Stewardship of the financial resources of the KSC, consisting of subscribed share capital, loan funds and funds generated by the company. Liaison with international lenders and bankers on draw-down and repayment of loans, on short-term bank borrowings as required and on placing short-term surplus funds. Preparation of cash forecasts as required.
- (D) In addition to the above, and the provision of the routine control information to the various management levels, the Financial Controller will be responsible for:
  - i) Ascertaining unit costs by products,
  - ii) Maintaining suitable cost information to be used in negotiating sugar prices on the local market in accordance with the relevant agreements between the KSC and GDRS,
  - iii) Any financial investigations, appraisals or ad hoc exercises required by the MD, and
  - iv) Computerization of the company's accounting records.
- (E) Maintenance of proper accounting books and records, and preparation of the annual statutory accounts as required by the Company Law. These responsibilities include:
  - i) Records of income, expenditure, assets and liabilities,
  - ii) Payments of salaries, wages, material supplies and services,
  - iii) Invoicing sales, and
  - iv) Control of stores receipts and issues, stock records, stock verification and monitoring obsolescence and wastage.
- (F) Ensuring that adequate systems of internal control exist in respect of all financial records and transactions.

## Chapter 4

### Case Studies Analysis and The Development of The Main Research Hypotheses

Following the descriptive presentation of the two case studies, we now turn to analyze them critically with a view to generate the research hypotheses which are to be pursued further in the next stage of the research. Following the results of this analysis, a conceptual framework for the research will be developed. It will be seen that the theoretical foundation of the research framework is the modern contingency theory of the management accounting systems (MAS).

#### 4.1 Case Studies Analysis and The Generation of The Research Hypotheses

##### 4.1.1 The Application of The Cost Accounting Techniques

The discussion on the application of some of the cost accounting techniques in the two case studies started with highlighting the budgeting systems prevailing in the two companies. A closer look at the budget set up in GSC indicates that management has emphasized the one-year long budget with no attempt to formulate forecasts for longer periods. Not only that, but the structure of the budget appears to be typical to the one used in the other government central ministries and departments in every element. This in turn suggests that the components of GSC budget is identical to the conventional government budgeting which could be termed as 'fiscal budgeting' which is widely used among the non-profit organizations whose main objective is to provide services to the public. Moreover, the fact that the range and the structure of GSC budget coincide with those of the government, suggests that GSC budget is only an initial step towards preparing the overall annual budget of the government. It would appear, therefore, that the GSC budget as such is designed in a way as to provide information to the

government officials in the Ministry of Finance to help them draw the overall state budget estimates for any financial year. Therefore, no matter whether GSC budget ends with a deficit or a surplus, it is ultimately going to be incorporated in the state budget as either subsidies to be paid by the government to GSC in the former case, or as sources of revenues for the central treasury in the latter case.

In the KSC case, on the other hand, it is beyond doubt that the budget is effectively used as a basic cost accounting technique. This is mainly because of the comprehensive coverage of the budgeting system in KSC. Thus, the budget is set up for longer as well as shorter periods, fixed and flexible operating budgets are set up, and the operating fixed budgets cover a wide variety of activities such as production, sales, profits and capital expenditure. Moreover, it is evident that the budget is effectively used to serve the purposes of KSC management in planning and controlling the activities of the company and to evaluate the performance of the managers. The reasons for this conclusion are two-fold. First, the way these budgets are developed, a situation where all KSC managers, at different levels, participate in estimating, defending and approval of the budget. Second, the top management's explicit emphasis on the managers' responsibility for the monthly review of their budgets and investigation of the budget variances as indicated by the Cane Production Manager's case. However, it appears that a distinctive feature of KSC budgeting system is the setting-up of the long-term budgets in spite of the everchanging and turbulent economic environment of the country. Therefore, instead of being deterred by the unpredictability of this environment, KSC has committed considerable physical and human resources in order to establish long-term budgets. Consequently, despite the fact that the long-term budgets are used in a tentative manner, they indicate the KSC

determination to make use of advanced cost accounting techniques to scan and try to shape this hostile environment of a developing economy for the good of the company.

The area of costs, on the other hand, is one of the greatest failures of the GSC. The cost accounting and standard costing systems and variance analysis, are almost non-existent in GSC. Therefore, in view of the lack of these techniques which could have been used for cost accumulation purposes, it would appear that GSC management has opted for traditional and conventional means of compiling costs, such as adding the expenditure chapters of the budget to help make some major decisions like fixing the cane and sugar prices. This in turn has made GSC management vulnerable to various problems. For instance, the Tenants' Union has lost confidence in the costs presented by GSC management to negotiate the price of cane, and consequently, GSC management has often come under fire by being accused of using inaccurate cost information. By the same token, the lack of appropriate cost information resulted in the arbitrariness with which the pricing decision of sugar is made. However, it is not a question of not having these cost accounting and standard costing systems. Rather, the question could be, does GSC management need to apply these systems? Our findings in GSC case study tend to indicate that the GSC management is reluctant to establish these systems even when they are recommended by other government consultancy bodies like the MDC. This reluctance could be attributed to many factors. But, at this stage the fact that such important decisions like the price-setting of cane and sugar are made outside GSC on pure political grounds, may enable us to argue that there is no point for establishing these systems as far as these decisions are concerned.



In KSC, on the other hand, the company has applied a highly sophisticated cost accounting accounting system, which in turn has facilitated the application of other related techniques like standard costing systems, separation of costs into variable and fixed elements, flexible budgets, variance analysis, and the study of the cost-volume-profit relationships in the company. It would seem that KSC management backing for the application of these techniques is inevitable to reduce the operating costs and losses through the implementation of the 'austerity programme'. Moreover, one should think that it is by virtue of these techniques that KSC management will be in a good position to present its case on the negotiating table with the GDRS. Bearing in mind the 'conflict of interest' that exists between the negotiating parties, one could hardly imagine how this could be achieved without the application of these cost accumulation techniques.

Furthermore, the findings of GSC case study indicate that the role of the internal audit function has considerably been underestimated. Accordingly, it would appear that the role of the internal auditor in GSC is reduced to nothing more than ensuring rigid adherence to the government financial regulations. This situation has further been worsened by the fact that these government financial regulations are heavily geared towards reducing the number of defalcations and thefts rather than promoting the operational efficiency of the company. It is not surprising, therefore, to find that the internal audit section is subordinated to the Financial Administration of the company with no direct communication with GSC top management. Furthermore, the fact that GSC, as a public sector enterprise, is irregularly audited by the Auditor General, who pursue the same objective of protecting public money against theft and defalcations and ensuring the implementation of the government financial regulations, has significantly reduced the

role of the audit function as an integral part of the management control systems.

In KSC, on the other hand, the status of the internal auditor as shown by the organization chart, is a good indication of the expectations of KSC management as regards the potential role and services that could be provided and played by the internal auditor. Undoubtedly, therefore, it would appear that being technically competent, completely autonomous and directly responsible to the MD, have enabled the internal auditor to expand the range of his services from the conventional statutory audit to the introduction of the efficiency audit. Moreover, the establishment of the Audit Committee of the Board, is another evidence of the importance which KSC management attaches to the internal audit function as an essential and integral part of the management control systems in KSC.

Finally, the utilization of the computer technology in the management information systems is another area to which the findings of the two case studies direct our attention. In GSC, on the one hand, there is no use of the computer and it is unlikely that it is going to be utilized in the near future. On the contrary, the computer is used in the KSC for a variety of purposes including producing the production statistics, the computerization of the cost accounting activities, the payroll, and inventory control. It is evident, therefore, that the comprehensive utilization of the computer has promoted the managerial know-how and has facilitated what could be termed as the information revolution in KSC compared to GSC. Consequently, while in GSC there is hardly any accounting information available to the management, it is evident that the use of the computer in KSC has enabled the Accounting Department to provide frequent and various accounting reports

and information to the different management levels.

On the whole, therefore, the analysis of the application and non-application of some of the cost accounting techniques in GSC as a public enterprise, and KSC as a private enterprise, tends to suggest that there is a difference between the public and the private enterprises in the level of sophistication of management accounting techniques. The analysis tends to indicate that, while the application of almost all the cost accounting techniques is non-existent in GSC, almost all these cost accounting techniques are effectively applied in KSC. These conclusions in turn tend to suggest that the application of the cost accounting techniques, as suggested by the two case studies, could be perceived in terms of the ownership of the company, that is, whether the company is publicly or privately owned. On the basis of these conclusions, therefore, one could hypothesize that:

Hyp. 1:

The level of sophistication of management accounting techniques is low in the public sector enterprises and high in the private sector enterprises.

#### 4.1.2 The Role of Financial Controllers in Management of The Public and The Private Enterprises

However sophisticated the management accounting techniques may be, they are meaningless unless management can make use of them. The findings of GSC case study tend to indicate that the role of the accounting department in providing accounting information to the various management levels is minimal. This is particularly true as GSC financial controller does not provide any accounting information throughout the financial year. It is beyond doubt, therefore, that the conventional financial statements is the sole accounting report produced by the

financial controller, though it is much in arrears. Not only that, but it would seem that this accounting report is basically produced for the use of the external government bodies, such as the Ministry of Industry and the Auditor General, rather than for GSC management uses. This is because, upon the receipt of this accounting report, the GSC management signs it in a rubber stamp fashion and sends carbon copies of it to these government bodies. Consequently, based on the type, structure, and frequency of these accounting reports produced in GSC together with the fact that only the general manager of GSC receives this accounting data, one could easily hypothesize that GSC management hardly used any accounting data for any purposes. Not only this, but the GSC top management did not even use the traditional financial statements for performance evaluation as it simply put the blame for poor performance on the outside controlling government bodies on the basis that they are responsible for solving the problems which GSC faces. Needless to say, GSC management did not ask the financial controller of the company for special accounting information to make the important managerial decisions in GSC, as all these decisions are made outside the company's level.

The evidence produced by KSC case study regarding the role of the financial controller in internal reporting to management is quite the opposite. Indeed, one could argue that internal reporting to management constitutes a major part of the financial controller's work. This argument could be supported by the vast number of managers who receive reports meant to satisfy their particular needs, the frequency of producing these accounting reports and the limited divisionalization of the accounting function to facilitate smooth communication channels between accountants and managers at the operating level. Moreover, it would seem that the utilization of the computer and KSC management

backing and emphasis on these accounting reports have helped to maintain, enhance, and improve the quality of these accounting reports and services. Given the availability of the frequent accounting information to the different management levels in KSC, it is quite evident that KSC managers, at different levels, have relied extensively on the accounting data to control the operations of the company and to evaluate the performance of their divisions, departments and cost centres with respect to their estimated budgets. The serious consideration of these accounting reports, the clearly defined lines of authority and responsibility across the company, the clear definition of the tolerable and intolerable limits of the budget variances, and the implementation of the austerity programme in the company, have facilitated effective use of accounting data for operational control and performance evaluation purposes in KSC.

Most important, it is evident that the financial controller and the accounting data have guided most of the important managerial decisions in KSC such as the production and investment decisions. This is particularly true in the price-setting decision, which is controlled by the government according to the provisions of the sugar sales agreement. Therefore, to conform to the provisions of this agreement, and to increase prices and consequently the profitability of the company, the cost information is considered as a prerequisite. Apparently, therefore, this fact meant more power and influence for the Accounting Department and the financial controller. Consequently, the financial controller is seen by KSC management as the right person to develop the expertise of presenting, discussing, and defending the cost information before the government officials, and thereby defending the interests of the company.

This discussion on the role of the financial controllers and accounting information in GSC as a public enterprise and KSC as a private enterprise, tends to suggest two different situations. In the first situation, the financial controller of the GSC played little or no role in providing GSC management with useful accounting information, and consequently, the GSC management hardly used any accounting data. In the second instance, our findings tend to suggest that internal reporting to management is a major function of the financial controller of KSC, and that the accounting data is widely used by the KSC management at different levels and for different purposes. These conclusions, therefore, would enable us to hypothesize that:

Hyp. 2:

The role of the internal controllership function is low in the public enterprises and high in the private enterprises.

4.1.3 Government Control Over The Public and The Private Enterprises

The findings of GSC case study indicate that the company is subjected to excessive controls imposed and exercised by different government bodies. The issuance of the government financial regulations with a view to protect the public interests and money, is a good case in point. Bearing in mind the wide range of activities covered by these regulations, such as the budget range and structure, how to procure the purchases of raw materials and spare parts, how to handle the cash and cheque receipts and payments, and how to handle the stores, it is evident that these government financial regulations are only meant to tighten control over GSC by laying down the detailed procedures which the company should follow. On the whole therefore, the government used these regulations as a vehicle to tighten control on GSC management by specifying the courses of action to be taken in a

variety of activities. Furthermore, the government control over GSC seems to go much further to the extent of directly getting involved in the GSC operational decisions. Accordingly, the government retains the authority of fixing the prices of cane and sugar against the wishes of GSC management and its participation. The complete government control over these decision areas has led to the "politicization" of these decisions to the complete disregard of the commercial considerations.

Indeed, it would seem that the public ownership of GSC has induced the tight government control over GSC to the extent that there is hardly any decision area that could escape government control. It is not surprising, therefore, that the government has kept a close eye on the resource allocation process to the extent that the annual budget of GSC is referred to the government for final approval. Not only that, but the range and the structure of the GSC budget coincide with those of the overall state budget, and that GSC budget is estimated on the basis of the broad lines issued by the government. Finally, it seems that the government, being motivated by the desire to protect the public interest, has vested the authority to appoint and train GSC management staff with the Ministry of Industry. The government control over the appointment and training of GSC management staff, makes it clear that the government tight control over GSC covers all the financial decisions and matters as well as the recruitment and development of the human resources.

It is quite evident, therefore, that GSC, as a government-owned factory, is subjected to tight government control. Certainly, this tight government control has directly and negatively affected the level of sophistication of management accounting techniques and the role of

the controllership function in GSC in many ways. For instance, the government financial regulations have reduced the budget of GSC to the fiscal budget or the conventional government budgeting with its well-known chapter classification. As such, it seems that GSC budget is no longer a basic cost accounting technique that could be used for planning and control and performance evaluation purposes. Moreover, the fact that GSC budget is subjected to the approval of the government has forced GSC management to approach the estimation of the budget within the government financial regulations and instructions to the extent that the budget looks like "a legally required nuisance". Thus neither GSC management nor the financial controller have made any attempts to improve the efficiency and effectiveness of the company through the budget which could have been used for these purposes. On the contrary, the rigorousness of the government financial regulations, instructions and the approval of the budget, have induced inefficiency and ineffectiveness by forcing GSC management to resist the government cuts by building huge budgetary slack. Another instance in which the government financial regulations have induced inefficiency and ineffectiveness in GSC is attributed to the rigid application of the purchases procedures. The long delays which occur due to the application of these procedures do not suit the commercial operations as it hampers smooth running of GSC and increases the cost of production. Apparently, therefore, the application of the government financial regulations has induced inefficiency and ineffectiveness, and consequently has discouraged GSC management from relying on the accounting data and the accountants in running the company.

Additionally, it is noticeable that while the government financial regulations have concentrated on describing the structure and the budget format and the different procedures to handle cash, checks and



stores, they remained silent as far as the other cost accounting techniques and the role of accountants in providing accounting data are concerned. This could have encouraged GSC management to apply these techniques and assign greater importance to the role of accountants in the management of GSC. By the same token, the government financial regulations mentioned nothing about the role of GSC management in running the organization as efficiently and effectively as possible, which in turn has discouraged GSC management from making full use of the services that could be provided by accounting and accountants to promote efficiency and effectiveness.

On the other hand, it is undoubtedly true, that the government complete control over the major decisions in GSC, such as setting the price of cane with the tenants, setting the price of sugar, and the investment decision, has discouraged GSC management from adopting cost accounting techniques that could have been used to help make these decisions such as cost accounting systems and the capital budgeting techniques. Similarly, the government centralization of these decisions, has discouraged GSC management from taking any initiative to ask the financial controller for special accounting reports or using accounting data to make these decisions.

Finally, it is worth mentioning that even the government control on the appointment of the GSC management is not without a negative impact on the role of accounting and accountants in GSC. The appointment of GSC management by the government implies that GSC is not allowed to take any initiative on its own to make use of the foreign expertise in the management of the organization, which could have advanced the role of accounting and accountants in management in GSC. It seems that GSC is not allowed to make use of the foreign expertise unless it is

the policy of the government.

It would appear that the impact of the government tight control is so influential that it even has much more effect than the direct impact on the level of sophistication of management accounting techniques and the role of controllers in the management of GSC would suggest. The obvious reason for this is that the impact of the government control over GSC could even be traced to other organizational and managerial variables in GSC. Thus, the government desire to implement its economic and social development policies such as reaching self-sufficiency, preserving hard currency and regional development will definitely affect the organizational objectives pursued by GSC. Similarly, the government desire to tighten control on its public enterprises with a view to protect the public interest, affects the way GSC is organized and the way GSC management is appointed and trained. These variables in turn will have a direct impact on the role of accounting and accountants in the management of GSC as will be discussed later. Therefore, government control over GSC has a direct impact on the role of accounting and accountants in the management of GSC, and has an indirect impact on the role of accounting and accountants in GSC through its impact on the other managerial and organizational variables.

The findings of KSC case study, on the other hand, tend to suggest that the company is hardly exposed to any government control.

Apart from the price control by virtue of the sugar sales agreement and the government control on the importation of sugar, it is evident that KSC is released from any government control. The lack of government control over KSC in turn has many positive implications for the role of accounting and accountants in the management of KSC. Consequently, the company has the free hand to design its own policies

and procedures manuals which cover all the activities of the company including the Finance Division. It is not surprising, therefore, that the accounting policies and procedures manuals have incorporated a variety of management accounting techniques, and identified in detail the different types, formats, and frequencies of producing the accounting reports by KSC Accounting Department. This in turn has explicitly and formally clarified the role of the controllership function in maintaining these techniques and providing KSC management with information.

Moreover, it is evident that the fact that all the major decisions are made inside KSC has advanced the role of accounting and accountants in making these decisions. It is not surprising, therefore, that KSC management has resorted to the financial controller to make a special study on the impact of the increase in the production capacity on the operating costs and profits of the company which involves a rigorous analysis for the cost-profit-volume relationships. By the same token, as the investment decision is a pure KSC decision, KSC management has again sought the financial controller's advice by making a feasibility study using the capital budgeting techniques which are adopted by the company. Not only that, but even when the government controlled the pricing decision, this has advanced the role of accounting information and accountants. Therefore, the fact that KSC management has to provide and explain a detailed cost information to convince the government to approve the proposed price, has improved the standing of accounting and accountants before KSC management.

Furthermore, the fact that the appointment of management is a pure KSC decision, has tremendous implications for the role of accounting and accountants in the management of KSC. This is because KSC shareholders are in a position to make use of the foreign expertise,

that is, employing the Arkel International as managers on a four-year management contract basis. Certainly, this foreign management has laid down the foundation for the sophisticated management accounting techniques and the role of the financial controller, which have been inherited by the existing management.

Finally, and most important, the fact that KSC, as a private enterprise, has escaped the government control in many aspects, has implied that the company is no longer obliged to pursue any government-backed goals or subordinated to any government supervisory bodies. Therefore, this loose government control over KSC has enabled the company to avoid the government influence which could have shaped some of its organizational variables such as goals and structure, and some managerial variables like education background and attitudes. This in turn has an indirect positive implication for the role of accounting and accountants through these organizational and managerial variables, as will be discussed later.

The previous discussion shows that two degrees of government control could be identified with respect to GSC as a public enterprise and KSC as a private enterprise. Evidently, the government has assumed tight control over GSC on a variety of matters with immediate direct and indirect negative implications for the role of accounting and accountants in management of GSC. In KSC, on the other hand, the government assumed little or no control on the company, which in turn has a direct and an indirect positive impact on the role of accounting information and accountants in the management of the company. In this sense, therefore, it seems that the impact of the degree of government control is so influential when perceived in the public-private ownership dichotomy. On the basis of these conclusions, therefore, one

could hypothesize that:

Hyp. 3:

The degree of government control, being tight on the public enterprises and loose on the private enterprises, is the most influential factor that affects the hypothesized difference (that is, hypotheses 1 and 2) in the role of accounting and accountants in the management of the public and the private sector enterprises.

#### 4.1.4 The Organization Goals

GSC case study has pointed to the organization goals which the company is pursuing. The government-backed goals of GSC, as incorporated in its warrant of establishment, suggest that the GSC is originally erected to serve pure political objectives such as reaching self-sufficiency from sugar as a strategic commodity, to minimize the drain on the foreign currency, and to enhance regional development in the area. The statements of GSC top managers suggest that they "got the message right" as they are identical to those stated by the government, and as they rejected openly the idea of profitability as the main goal. Not only that, but the considerations taken in the major decisions of GSC is more evidence for the pursuit of the political and social goals by GSC. Thus, the prices of sugar are fixed below cost so that the final consumer could get this strategic commodity which is consumed by the vast majority of the Sudanese people, as cheaply as possible, the prices of cane are fixed to enable the tenants to maintain decent living standards irrespective of any commercial considerations, jobs are created by GSC to the extent of "disguised unemployment", and GSC spends generously to provide the health and education services to the citizens.

Naturally, the pursuit of the political and social goals in GSC

is not without serious repercussions for the company in many ways. As a result of this, for instance, GSC has to sustain huge losses. Additionally, the pursuit of non-commercial goals has a direct negative impact on the level of sophistication of management accounting techniques and the role of controllers in management of the GSC. Apparently, therefore, the less emphasis put on profit-making as the major goal in GSC has reduced the natural feelings of cost-consciousness and the desire to control costs. This in turn has discouraged the GSC management from applying the advanced cost accounting techniques and assigning greater importance to the financial controller and accounting data which are designed to help in cost control. Moreover, it would appear that the pursuit of the political and social goals by GSC is used by the management as an excuse to justify poor performance, as GSC management is inclined to talk about providing jobs and social services and turning a blind eye to the huge losses incurred. This feeling of indifference towards the performance of the company is further encouraged by the fact that the government is ready to subsidize the company indefinitely and keep the company going despite these huge losses. One could argue, therefore, that the pursuit of the political and social goals in GSC has induced inefficiency and ineffectiveness among GSC managers. This in turn has discouraged GSC management from making any genuine attempts to improve the performance of the company, that is, promote efficiency and effectiveness, and consequently discouraged GSC management from applying the sophisticated management accounting techniques and relying on the accounting data and accountants which could have improved efficiency and effectiveness in the company.

In KSC case study, on the other hand, the reverse holds true. The statements of KSC managers tend to indicate that much emphasis is put on the profit-making goal, with less emphasis on the other political

and social goals. Not only that, but it would appear that the commitment of such a huge investment by the private shareholders could only be justified on the basis of the desire to make profits. Moreover, it is evident that the political goal of preserving hard currency is simply non-existent. This is because the Sudanese government has to pay in hard currency for the export sugar sales, despite the fact that the government faces acute shortage in hard currency. By the same token, offering a special price for the local sugar sales, which is based on cost-plus basis and is much higher than the one offered for the other four government-owned sugar factories, suggests that the commercial considerations have been emphasized.

Consequently, the emphasis of the profit-making goal in KSC has many positive implications for the level of sophistication of management accounting techniques and the role of controllers in internal reporting. Apparently, therefore, the profit-making goal has motivated KSC management to utilize the cost accounting techniques which are vital to identify and secure the achievement of a certain profit target such as budgets, cost accounting and standard costing systems, flexible budgets and break-even analysis. Similarly, the role of the financial controller in compiling and interpreting accounting data and cost control and the managers' use of the various accounting reports for many purposes, is triggered by the fact that KSC managers have got at the back of their mind this desire to make profits. Furthermore, the clarity towards the profit motive has always induced the KSC management to be more efficient and effective to the extent that managers used to refer explicitly to "efficiency and effectiveness" in their statements. This in turn has motivated KSC management to apply the sophisticated management accounting techniques and rely heavily on the accounting data and accountants to promote the operational efficiency and effective-

ness in the company. The use of the budget as a vehicle to carry out the austerity programme, the role of controllers in providing and interpreting the different cost reports, the limited divisionalization of the accounting function, and the managers' use of accounting data illustrate the genuine attempts of KSC management to find ways and means of improving efficiency and effectiveness of the company.

This discussion showed that GSC, as a public enterprise, has emphasized the government-backed political and social goals, with little or no emphasis on the commercial goals. This in turn has negatively affected the role of accounting and accountants in the management of GSC. In KSC, on the other hand, the emphasis of the commercial goal is beyond doubt. This has positive implications for the role of accounting and accountants in KSC. However, it should be stressed that emphasis on commercial goals and sophisticated management accounting systems and controllership functions in KSC do not guarantee making profits. This is because financial performance of a company is affected by many factors other than management accounting systems. For instance, KSC incurred losses (see Chapter 3) partly attributed to the 'extraordinary losses on Devaluation' of the Sudanese pound. Consequently, one could perceive the goals of the Sudanese enterprises and their impact on the role of management accounting and accountants in terms of the public-private ownership dichotomy. Following these conclusions, one could hypothesize that:

Hyp. 4:

The ambiguity towards the commercial goals in the public enterprises, and the clarity towards the commercial goals in the private enterprises, lead to differences in the roles of accounting and accountants in the management of the public and private sector enterprises.



#### 4.1.5 The Organization Structure

The organization chart of GSC shows the way the company, as a public sector enterprise, is organized. This organization structure, therefore, reflects the multiplicity of the government bodies which are directly involved in the management of GSC. Therefore, by virtue of this organization chart, the Ministry of Industry assumes the general supervision of GSC and retains the formal authority to make some decisions like the fixing of the prices of cane and the appointment of the senior management staff. It would seem, therefore, that the idea of subordinating GSC to the Ministry of Industry is basically meant to tighten the government control over the company with a view to protect the public interest. Needless to say, this organization structure which formally authorizes the Ministry of Industry to make some decisions, together with the tight control by other government bodies on other decision areas, has reduced the managerial autonomy of the GSC to nothing more than carrying out the approved budget and production quota. Not only that, but even the authority to solve the major problems facing GSC is retained by the Ministry of Industry by virtue of this organization structure.

Apparently, therefore, this type of organization structure, which is less autonomous, has negatively affected the role of accounting and accountants in the management of GSC in many ways. First of all, this type of organization structure formally refers the authority to make decisions to outside supervisory government bodies. Undoubtedly, therefore, this will reduce the managers' need for accounting data and the services of the financial controllers to help make these decisions. Moreover, the fact that the Ministry of Industry is responsible for solving the problems that encounter the production in

GSC by virtue of this organization structure, has induced GSC management to maintain passive attitudes towards solving these problems and wait for outside government officials to solve them. This in turn has reduced GSC management's need for accounting data and the accountants' advice to propose means and ways of solving these problems. Not only that, but these problems are used by GSC management as an excuse to justify poor performance without any serious consideration to improve the efficiency and effectiveness of the company, which could have motivated the company management to realize and make use of the potential that accounting and accountants could provide in this respect.

KSC organization structure, on the other hand, shows that the company is managerially autonomous and is not subordinated to any supervisory government body. Evidently, therefore, this type of organization has enabled KSC management to retain full authority for making decisions inside the organization's level. It is not surprising, therefore, that KSC management being confronted by these managerial decisions, has made full use of accounting data and accountants in making these decisions. Moreover, the fact that KSC management has the ultimate responsibility to solve the operating problems that encounter production in the company, such as the shortage of hard currency, has again motivated KSC management to resort to the financial controller of the company for accounting information which could help solving these problems. The involvement of the financial controller in preparing the long-term financial projections and negotiating the supply of hard currency, illustrate the awareness of KSC management of the potential that accounting and accountants could provide in solving these problems.

To conclude this discussion, it is apparent that the organization structure of GSC is less autonomous as it is directly subordinated to outside government supervisory bodies. This in turn has negatively affected the role of accounting and accountants in GSC. In KSC, on the other hand, the company is run on direct management basis and all the decisions are made inside the company. This type of organization structure has positive implications for the role of accounting and accountants in the management of KSC. These two different types of organization structures suggest another distinctive feature of both the public and the private enterprises in the country, and with immediate different impacts on the role of accounting and accountants in management of the two sectors. Following these conclusions, therefore, one could develop the following hypothesis:

Hyp. 5:

The organization structure of the public enterprises, being less autonomous, and the organization structure of the private enterprises which is highly autonomous, affects the role of accounting and accountants in the management of the public and private sector enterprises.

#### 4.1.6 The Organization Size

The findings of GSC tend to suggest that the size of GSC is relatively large. Theoretically speaking, therefore, one could expect GSC management to attach high importance to the role of accounting and accountants to control the operations of the company. However, and practically speaking, GSC management put much more emphasis on informal means, basically the direct personal contacts, to control the operations of the company. Certainly, this does not necessarily imply that GSC management, or the management of any other company, could rely totally on the informal means to control the operations of such a large

organization without the need for accounting information. Instead, this may suggest that there are other factors whose negative effect on the role of accounting and accountants in the management of GSC is so influential to the extent that the positive impact of size is waived altogether. Our previous discussion tends to suggest that this influential factor is the tight government control over GSC. Whatever the reason may be, there is no doubt that the relatively large size of GSC has no positive impact on the role of accounting and accountants in the management of GSC.

In KSC case, on the other hand, the positive impact of the large size of the company is beyond doubt. Definitely, therefore, the fact that KSC is the third largest sugar mill world-wide, has forced KSC management to be highly formal and rely extensively on the accounting data and the services of the controllership department to control and monitor the operations of the company. The fact that KSC management did not rely on the informal means such as the personal contacts to the same extent in GSC, tends to support this conclusion. Following these conclusions on the impact of size in GSC as a public enterprise and KSC as a private enterprise, one could hypothesize that:

Hyp. 6:

The impact of size on the role of accounting and accountants in the public and the private enterprises, is less important in the public enterprises and more important in the private enterprises.

#### 4.1.7 The Organization History

The findings of GSC and KSC case studies tend to suggest that the current management accounting and accountants practices could hardly be isolated from their recent history. In GSC, for instance, the financial accounting, the budgeting and auditing systems were originally

designed by the Public Corporation for Sugar and Distillery. In fact, there is no change at all in the management information systems in GSC following the liquidation of this Corporation four years ago. Instead, the same accounting staff continued to carry out the same practices to which they were used.

In the case of KSC, on the other hand, most of the existing cost accounting techniques and the role of the accountants in the company, was originally introduced by the Arkel International during the four year management contract. This is because when the contract expired, some of the Arkel accounting staff continued to work in KSC and the same accounting policies and procedures manuals were continued to be used. This may suggest that people in most cases stick to previous practices and are reluctant to change.

These conclusions, therefore, tend to suggest that the current role of accounting and accountants in the management of at least some public and private enterprises could be traced back to their recent history. Therefore, it would be erroneous not to investigate whether or not the existing management accounting and accountants practices could be related to some historical changes witnessed by a certain public or private enterprise.

It is quite possible that at least in some public and private enterprises the same or similar historical changes may have been experienced with similar impact on the role of accounting and accountants in these enterprises. This is particularly true in the public sector enterprises where it is possible that the government policy of restructuring the public sector enterprises could be extended to the other manufacturing industries. In the private sector, it is possible too that some companies may have made use of the foreign

expertise in management in one way or another. Therefore, it is possible to hypothesize that:

Hyp. 7:

The organization history of at least some public and private enterprises may have affected the role of accounting and accountants in the management of these enterprises.

#### 4.1.8 Managers' Education Background

The findings of GSC case study tend to suggest that GSC top management is dominated by the engineers without any background in the management of the business organizations. It would appear that this situation is worsened by the fact that those engineers did not attend any appropriate training courses on the usefulness of accounting data and accountants in the management of business organizations. Furthermore, it seems that this problem is tripled by the fact that those engineers have spent all their experience in the production department and the public manufacturing companies. Therefore, it is not surprising that GSC top management showed less interest even in some of the irregular accounting reports submitted by the accounting department. Therefore, it seems that the domination of engineers in GSC top management implied the lack of understanding for the potential that accounting and accountants could provide in the management of the company, and consequently less reliance on the accounting data and accountants in this respect.

It would also appear that the domination of engineers in GSC top management has created lots of barriers and communication problems between GSC top management and the accounting department, because of the 'superiority feeling' on the part of the engineers over the accountants as explicitly suggested by a senior accountant in the Financial

Administration. This in turn may have induced GSC top management not to rely on accounting and accountants in the management of the company and to turn a deaf ear to whatever the accounting department produces or suggests. Finally, it seems that the experience of GSC top management as ex-production managers, has negatively affected the role of accounting and accountants in the management of GSC. This is because GSC top management tends to emphasize the same informal means of direct contacts and observations which they were used to in the production department. This tends to suggest that managers run GSC as a production centre and not a profit centre. This in turn has reduced their reliance on the accounting data and accountants to control the operations of the company.

In the case of KSC, on the other hand, there is no evidence of the domination of engineers at the top management level. Thus, the Board of Directors of KSC is a combination of experts in finance, economics, engineering and agriculture. KSC is run as a profit centre. Additionally, both the managing director and his assistant, who are both Sudanese, did undergraduate and postgraduate studies in economics and business administration. Not only that, but even the other operating managers with no background in business studies received regular and appropriate training courses. Another distinctive feature of KSC management is that some foreign managers spent their experience with some leading Western companies. Therefore, the managers' education background, training and experience, have enabled KSC management to realize the potential that accounting and accountants could provide in the management of the organization. It is not surprising, therefore, that KSC management has relied almost exclusively on the accounting information and accountants to control the operations of the company and to make the important decisions in the company. The establishment

of the 'Economic and Financial Analyst' position is another evidence of the financial orientation of KSC management.

On the whole, therefore, this discussion tends to suggest that the difference between the role of accounting and accountants in the management of the public enterprises and their counterparts in the private sector could be attributed to the different management cadres employed in the two sectors. Following these conclusions, one could hypothesize that:

Hyp. 8:

The domination of the non-professional business managers in the public enterprises, and the domination of the professional business managers in the private enterprises, affect the role of accounting and accountants in the management of the public and the private sector enterprises.

#### 4.1.9 Managers' Attitudes Towards Accounting and Accountants

Managers' attitudes towards the role of accounting and accountants in management could be affected by their education background, experience and/or a variety of other factors. GSC managers' attitudes towards the role of accounting and accountants in the management of the organization, suggest that the management is not aware of the usefulness of accounting data and the potential that the financial controller could provide to help manage the company. This could be inferred from the fact that some managers kept telling the researcher that the role of accounting data and accountants in the company is very important but failed to identify the areas in which accounting data and accountants could help them. Even when some managers managed to identify some areas in which controllers could help, they seemed to be affected by the liquidity problems which GSC faces. Apparently,



therefore, they think that the role of the financial controller is to chase the government officials in the Ministry of Finance asking for more budget approvals. In this sense they failed to refer to the role of the financial controller in internal reporting inside the organization. Moreover, it would seem that these attitudes are worsened by this feeling of superiority of GSC management as suggested by the financial manager of GSC. Apparently, therefore, GSC management's attitudes towards the role of accounting and accountants is reduced to nothing more than record-keeping and contacting the Ministry of Finance when liquidity problems arise in GSC. It is not surprising, therefore, that the actual role played by the accounting and accountants in the management of GSC is very low in view of these low expectations of the GSC management regarding the role of accounting and accountants in management.

KSC management, on the other hand, maintained positive attitudes towards the role of accounting and accountants in the company. This conclusion could be reached from the statements of KSC managers in which they attached higher importance to accounting and accountants to the extent that some managers identified the role of accounting and accountants in problem-solving, whereas still others believe that the role of accounting and accountants in management is inevitable in any profit-making organization. This in turn indicates the financial orientation of KSC management and its reliance on the financial controllers to provide accounting data to help control operations and make the major managerial decisions of the company. The financial orientation of KSC management could be illustrated by the establishment of the Financial and Economic Analyst position to provide a different set of informational services. However, the formal identification of the wider responsibilities of the financial controller of the company

as stipulated in the job description, tends to confirm the positive attitudes of KSC management regarding the role of controllers in providing accounting data and getting involved in the decision-making in the company. On the whole, therefore, the awareness of KSC management of the usefulness of accounting information and management accountants seems to be beyond doubt. To a greater extent, therefore, this explains the sophisticated management accounting techniques and the controller's involvement in management of the company.

Apparently, therefore, the actual role of accounting and accountants in the management of an organization is significantly affected by the managers' expectations regarding the potential that accounting and accountants could provide in the management of an organization. Following the conclusions on the managers' attitudes towards the role of accounting and accountants in GSC as a public enterprise, and KSC as a private enterprise, one could hypothesize that:

Hyp. 9:

The managers' negative attitudes towards accounting and accountants in the public enterprises, and the managers' positive attitudes towards accounting and accountants in the private enterprises affect the actual role of accounting and accountants in the management of the public and private enterprises.

#### 4.2 The Research Conceptual Framework of Hypotheses

Figure 4.1 incorporates the hypothesized contingent variables within the public-private ownership dichotomy, and their hypothesized effects on the level of sophistication of management accounting techniques and the role of the controllership function in the public and the private enterprises. The conceptual framework constitutes the main research hypotheses which are to be pursued further in the next

stage of the research. Therefore, and specifically speaking, taking the level of sophistication of management accounting techniques and the role of the controllership function as the 'units of analysis', the specific relationships which are to be thoroughly investigated are indicated by the links A, B, and C. However, the relationships hypothesized by the contingency theory of organization structure and management accounting, which are indicated by the dashed lines, will not be investigated in this study. The obvious reasons for this are two-fold. First, these relationships are outside the scope of the major research question. Second, to investigate these relationships might require many theses. Finally, though not part of the research hypotheses, the impact of the degree of government control on some organizational and managerial variables, as indicated by the links D and E, will be discussed.

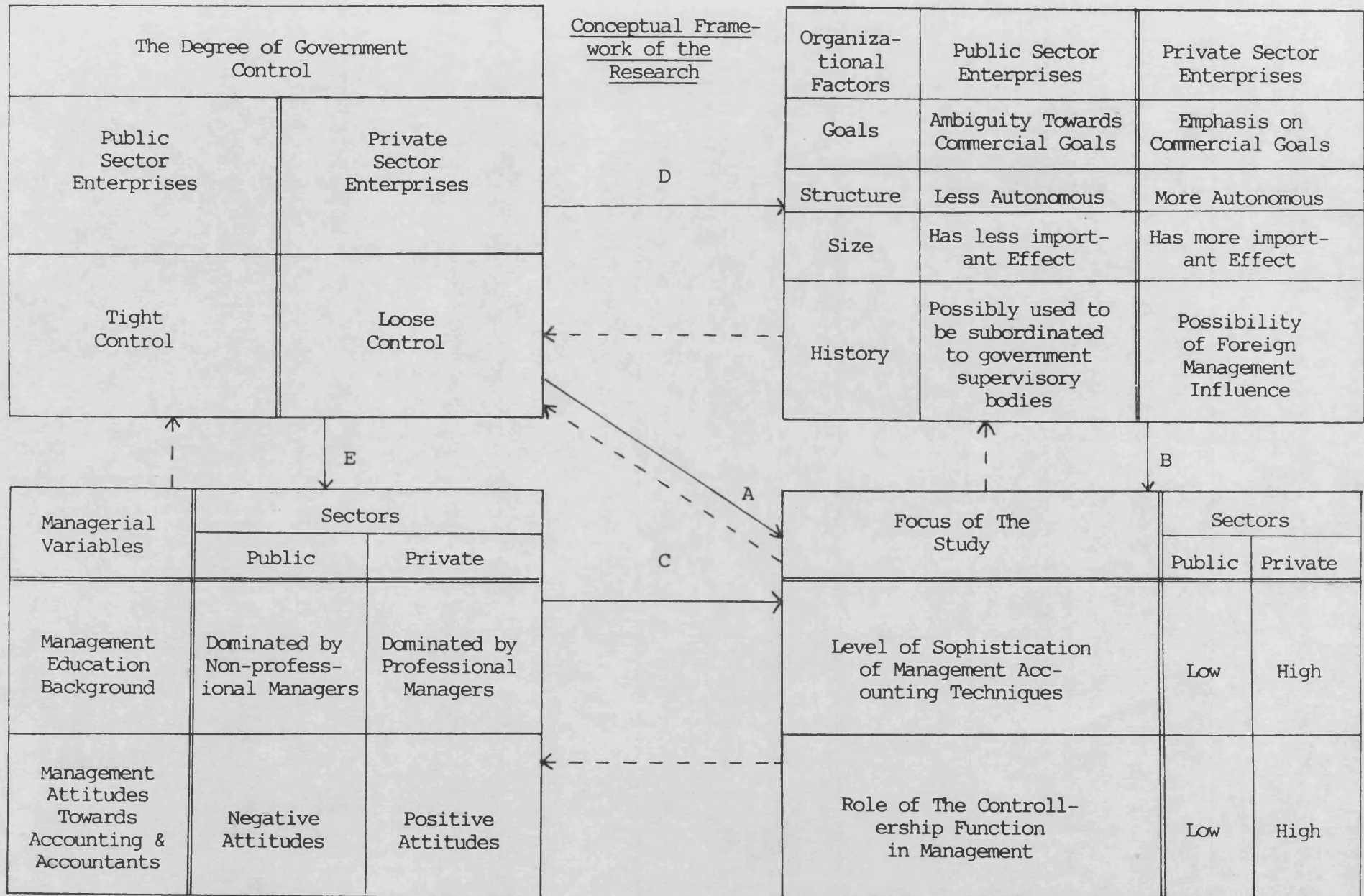
The idea of developing a conceptual framework is deemed to be essential to collect data with a view to test the research hypotheses. Jaggi (1973), identifying the potentials of developing conceptual frameworks to investigate the accounting practices in the developing countries, argued that:

"Another area for fruitful research is the development of frameworks to examine the usefulness of accounting systems in the context of their specific environments".

Needless to say, this research model is in line with the current thinking of management accounting literature which incorporates modern contingency theory of the management accounting systems (MAS). The essence of the contingency theory of MAS, as defined by the advocates of this theory, is that "there is no universally appropriate accounting system which applies equally to all organizations in all circumstances. Rather, it is suggested that particular features of an

Fig 4.1

Conceptual Framework of the Research



appropriate accounting system will depend upon the specific circumstances in which an organization finds itself".(Otley, 1980). Moreover, the idea of the two-way (cause-and-effect) relationships between the MAS and the organizational and contextual factors of an organization is quite common. Therefore, during the mid seventies and the early eighties, the bulk of the published work and accounting literature concentrated on the behavioural and organizational aspects of MAS (Gordon and Miller, 1976, Dermer, 1977, Waterhouse and Tiessen, 1978, Ray, 1979, Menash, 1981, Otley, 1980 and others). It is worth mentioning at this point, that the contingency theory of MAS originally evolved by drawing heavily on the findings of the contingency theory of the organization which associates the organization structure of a company to other organizational and environmental variables. Waterhouse and Tiessen (1978), argue in this respect that:

"Contingency theory literature provides a convenient point-of-departure for discussing the effects of organizational variables on management accounting systems".

Colson (1980) raises the same point:

"An increasing number of accounting researchers have drawn directly on managerial theories as a means of developing management accounting theory".

Research-wise, the idea of applying the contingency theory of MAS to empirical management accounting research, has been carried out with satisfactory results. These practical applications suggested the soundness of the contingency theory in explaining the interrelationships between the MAS and the role of the controllership function on one hand, and a variety of environmental, organizational and managerial variables (Ray, 1979, Rosenzweig, 1981, Kazandjis, 1980, Sathe, 1982, Rikabi, 1984 and Jones, 1985). Nevertheless, the use of the contingency theory for empirical accounting research purposes and the verification

of the relationships suggested by the theory, is still less than expected. Rosenzweig (1981), states that:

"Few empirical studies using this (contingency) approach have been conducted".

Colson (1980), making similar observations, states that:

"Only a handful of studies exist which relate management accounting issues to either management or organizational considerations".

Undoubtedly, therefore, the idea of using the contingency theory of MAS for empirical research purposes rested with us even before the first stage of the research, that is, preparing the two case studies. Based on the usefulness of the contingency theory of MAS as shown by the previous empirical accounting research and the findings of the two case studies, it would seem that the use of the contingency theory of MAS for research purposes in the next stage of this research is promising. This study could be considered as another attempt to confirm or disconfirm the theoretical associations as proposed by the contingency theory of MAS.

Apparently, therefore, the contingency theory of MAS represents the theoretical background for the research model. Nevertheless, the contingent variables incorporated on the conceptual framework, though representing most of those suggested by the contingency theory of MAS, directly emerge from the analysis of the two case studies, rather than a literature survey of the contingency theory itself. This in turn has led to minor changes in the variables incorporated on the model. The degree of government control as a contingent variable, for instance, is basically suggested by the findings and analysis of the two case studies. Though this variable contains some aspects of environment (e.g. government regulations and economic development policy, and competition), which has been addressed by previous empirical accounting research in the developing countries, however, to the best of our

knowledge, no mention is made of this variable. By virtue of the findings of the two case studies, this variable emerged directly from the public-private ownership dichotomy. Furthermore, and while most of empirical accounting researchers tend to investigate some aspects of environment in developing countries without reference to the government control, this contingent variable turned out to be influential. Therefore, this research model is unique in the sense that it tends to emphasize the importance of this variable within the public-private ownership dichotomy, and at the same time takes the other contingent variables into account. Additionally, the analysis of the two case studies gives rise to another contingent variable which seems inevitable in view of the public-private comparison. This contingent variable is the organization goals pursued by the public and private enterprises. To my knowledge, all the empirical management accounting studies in the developing countries tend to ignore the impact of this variable on the role of accounting and accountants in management altogether.

On the whole, therefore, the uniqueness of this research model is that it is based on the theoretical arguments of the contingency theory of MAS and the analysis of the two empirical case studies. By all means, therefore, the development of this research model in this way is much better than "embarking on assembling" the contingent variables suggested by the contingency theory of MAS in a blind manner. In the next chapter, the theoretical association among the various contingent variables as suggested by the modern contingency theory of MAS, will be discussed.

Having said that, one has to recognize the fact that the modern contingency theory of MAS is not without criticism, and consequently,

the theoretical associations among the contingent variables as suggested by the contingency theory of MAS should not be taken for granted.

Colville (1981), criticizing the contingency theory of MAS, states that:

"Although the relevance of such a tradition (contingency theory of MAS) to management accounting has been firmly established, the approach has not gone without criticism".

One criticism is the lack of precise definition of the contingent variables used for or identified by the empirical management accounting research. Otley (1980), for instance, states:

"Although empirical studies exist, they are vague as to the links between specified contingencies and appropriate accounting systems design".

Jones (1985) points out the same dangers of the contingency theory:

"The present underdeveloped state of contingency theory is characterized both by a lack of precision in the definition of variables and by numerous theoretical hypotheses awaiting validation or contradiction".

Consequently, to avoid possible problems that might arise because of the ambiguity of the contingent variables, precise definitions will be given to these variables together with the theoretical association among them as suggested by the modern contingency theory of MAS and organization, together with the means and ways of operationalization of these variables. This is the focus of the next chapter. Moreover, one of the basic objectives of this study, is to expose the contingency theory of MAS for further empirical test. The theoretical and policy implications of the contingency theory of MAS emerging from this study will be reported in the fourth (final) part of the thesis.

Moreover, the contingency theory of MAS has come under fire again because of its failure to consider the changes in the MAS over a period of time that might emerge as a result of some changes which an organization might experience. Jones (1985), for instance, studied the implications of acquisition for the application of some management



accounting techniques in some acquired companies two years following acquisition, has pointed this problem.

"Considerable research attention has been directed, in recent years, to identifying the factors which may influence MAS and which should, therefore, be recognized by those who design and implement MAS. However, existing research has been criticized (for example Otley, 1980) because, amongst other things, it often fails to consider changes in MAS over time, their functioning in dynamic conditions, and the general dearth of empirical evidence".

Therefore, to avoid such problems and based on the findings of the two case studies, this research will investigate the historical changes which some organizations may have experienced, together with their impact on the current role of accounting and accountants in these organizations. However, because of the nature of this study and the possible methodological problems, one should not expect a longitudinal 'before and after' investigations. Instead, this study is confined to the broad investigation of any historical changes and their general impact on the current role assumed by accounting and accountants in these organizations.

#### 4.3 Overview of The Research Question

The research hypotheses developed at the beginning of this chapter, were generated with a view to providing a basis for next stage of the research. Unlike all the previous empirical management accounting research in the developing countries, this study uses the research case approach to identify research hypotheses in the first stage of the research and then test them in the second stage. Therefore, this study is meant to be a hypothesis-testing one, with a view to fill in this gap in the research methodologies used in accounting studies in the developing countries (Jaggi, 1973).

On the whole, the analysis of the two case studies tend to

suggest that the role of accounting and accountants in the management of the public and private enterprises is due to the difference in the degree of government control and other organizational and managerial variables as hypothesized previously. It is the intention of this research, therefore, to pursue these hypothesized differences further to other Sudanese public and private enterprises in other industries. Therefore, this study is intended to pursue the following major research questions:

- 1 - Is there any difference in the level of sophistication of management accounting techniques and the role of the internal controllership function in management between the public and the private sector enterprises ?
- 2 - And if so,
  - To what extent ?, and
  - Why ?

## Chapter 5

### The Research Methodology

#### 5.1 Introduction

The conceptual framework which was presented in the previous chapter, incorporates the main research hypotheses which are to be pursued in the next stage of the research with a view to answering the basic research question. Consequently, the research model contains all the contingent variables which, according to the findings of the two case studies, suggests differences in the level of sophistication of management accounting techniques and the role of the controllership function in internal reporting in the public and the private enterprises in Sudan. This chapter considers how to pursue these research hypotheses in the next stage of the research. A critical review of the accounting research methodologies used in the accounting studies in the developing countries will be provided in the next section of this chapter. Being itself an effort to investigate and accelerate the empirical accounting research in the developing countries, this section tries to relate this study to the various types of accounting studies previously conducted in the developing countries.

In Section 5.3, a detailed description for the theoretical linkages between the contingent variables of the conceptual framework and the level of sophistication of management accounting techniques and the role of the controllership will be provided. This will rely heavily on the empirical and theoretical work in both organization theory and accounting literature. Furthermore, this section will explain clearly the definitions of the various variables on the conceptual framework and how to collect data on them. This is done with a view to avoid using ambiguous variables, which is one basic limitation in the current use of the contingency theory of management accounting systems

for empirical research (Otley, 1980, Jones, 1985). Section 5.4 of the Chapter will discuss the criteria used to select the sample industries and firms which are to participate in the research. Section 5.5 of the Chapter, on the other hand, will provide a detailed description of how the research hypotheses are to be tested. This includes the research method to be used to collect data, persons expected to participate, the data to be collected and the contents of the questions of the interview guidelines to be used for the interviews. Section 5.6 will provide a brief description of the steps taken to analyze the data. Finally, Section 5.7 will provide a brief account on the structure of the thesis.

## 5.2 Accounting Research Methodologies Used in The Developing Countries

Generally speaking, accounting research has been categorized according to the types of data and types of research methodology used in projects undertaken. Others still prefer to use different categories which do not come under these two categories. Mueller (1970), for instance, in assessing the current status of the international accounting research prefers to "take his clue from the more traditional approach characteristic of the so-called hard sciences and classify accounting research as either applied research or theoretical research". This situation results in a multitude of categories of accounting research, which may even lead to confusion.

According to the types of data used in research studies, a more comprehensive classification of accounting research in the developing countries is given by Jaggi (1973). According to Jaggi (1973), the ultimate objective of these studies is to provide guidelines for the effective use of accounting in the developing countries. In assessing the current status of accounting research in the developing countries, Jaggi (1973), prefers to categorize the accounting studies as follows:

- 1 - Descriptive Studies. These studies provide information regarding the present state of the art of accounting. These are usually exploratory in their nature and attempt to determine the status of a particular discipline in a country. Such studies are generally based on primary sources of information. Data are obtained from observations and impressions gained directly from living in a country. Descriptive studies can also be based on secondary data obtained from existing sources.
- 2 - Conceptual Studies. In these studies a model or framework is developed which examines an existing system. The model is used to determine the capability of the system to accomplish the desired objectives. Data required for testing these models come from descriptive studies. Conceptual studies may be static, dynamic, or comparative. Conceptual models utilize a research design by which a particular system is studied in relation to another system. In such studies subsequent research will either support or fail to support the existing theoretical framework presented in the model. Such research should not end up with only an understanding of the existing systems of accounting. It must proceed further to develop normative models which provide prescriptions for improving those systems.
- 3 - Hypothesis-testing Studies. Such studies are required before normative models could be developed. Compared to descriptive and conceptual studies, hypothesis-testing studies are narrower in focus and more rigorous in methodology. Subsequent research either confirms or disconfirms hypotheses.

In terms of the objectives sought, this study is not an exceptional case from the previous accounting research. However, rather than investigating the role of accounting in economic development on

the macro level (i.e. overall economy), this study concentrates on the role of accounting and accountants in economic development on the micro level, that is, the organization's level. The obvious reason is that "economic development results from the economic efficiency of firms" Farmer and Richman (1969). This is particularly true in the case of the developing countries, which are generally characterized by scarce resources.

As far as the categorization of this study is concerned, it is obvious that it could fit within all three categories identified by Jaggi (1973). First, this study is a descriptive one in the sense that it describes the state of the art of the level of sophistication of management accounting techniques and the role of the controllership function in a developing country - Sudan. Second, this study is of a conceptual nature as it develops a research model that would help to investigate the state of the art of the phenomenon under investigation and the contingent attributes underlying these practices. Finally, this study is a hypothesis-testing one in the sense that it generates research hypotheses in the first stage of the research and then proceeds to test them in the second stage of the research. Moreover, the development of a normative model to improve the management accounting practices and the role of the controllership function in the management of the Sudanese enterprises is part of this study. This is mainly because this project is part of a development programme related to the financial management problems in some of the main Sudanese industries. When this project is finalized, it is expected that seminars on the research results will be conducted with a view to develop the financial management and control practices in these industries.

Certainly, both the research hypotheses and the conceptual frame-

work are largely based on the findings of the two case studies. Moreover, like any other conceptual study, an explanation for the relationships among the variables of the model, should be well formulated and developed. In this kind of research, not only the variables are to be defined, but their logical connection with the symptom to be researched, that is, the role of accounting and accountants in management, is to be identified. As we have already argued, this is essential if some of the limitations of the contingency theory of MAS are to be avoided. This is the focus of the next section.

### 5.3 Operationalization of The Conceptual Framework

The objectives of this Section are two-fold. First, to define the connections among the contingent variables depicted on the model, drawing heavily on the contingency theory of the MAS. Second, to define these variables and identify the necessary steps with a view to operationalize these variables and collect data on them, and consequently test the research hypotheses.

As the thrust of the thesis is to compare the role of accounting and accountants in management, together with the underlying factors, within the public-private ownership dichotomy, this section starts with the definition of the 'public' and the 'private' enterprises as used in this study. Generally speaking, the public enterprises have three different organizational forms : government departments, public corporations, and state companies. Hanson (1959) defines the state company as:

"An enterprise established under the ordinary company law of the country concerned, in which the government has a controlling interest through its ownership of all or some of the shares".

This definition is of little relevance to the case of Sudan. The reason is that, despite the recent restructuring of the public sector

enterprises as referred to in the GSC case study, yet almost all the public sector enterprises are still not registered under the 1925 Companies Act (the latest in the country).

Another definition of the public enterprises as opposed to the private enterprises is given by El-Namarki (1984), who defines public enterprises as:

"Non-traditional public enterprises or enterprises not involved in business areas typical for government-entities such as utilities. Ordinary business areas falling within the scope of these non-traditional public enterprises including manufacturing, wholesaling, retailing, export marketing, mining and banking. Their most characteristic trait is, probably, their potential for both profitable and efficient operation in markets other than those usually dominated by fiscal monopolies".

However, the findings of the GSC case study indicated that the profit-motive is not necessarily one of the goals of the Sudanese public enterprises. After all, this is one of the research hypotheses subject to test in the next stage of the research. Therefore, it is impractical to define the public enterprises on that basis.

Therefore, to avoid the limitations of these qualitative definitions, we will use the quantitative definition of public enterprises as used in Sudan. Accordingly, a publicly-owned enterprise is the one in which the government owns 51% or more of its shares, otherwise it is to be considered as a private enterprise. After all, this definition is generally accepted world-wide to distinguish public and private enterprises. Ramanadham (1985), for instance, argues that an organization is publicly-owned if:

"The direct and indirect government participation in the equity exceeds 50%. This is after all, a fairly common criterion internationally".

Needless to say, we will concentrate on the public and private enterprises which are engaged in the manufacturing and hotel business areas.



### 5.3.1 The Level of Sophistication of Management Accounting Techniques

The level of sophistication of management accounting techniques in the public and the private enterprises as used in this study, will refer to the application or nonapplication of the major techniques identified by the Western (UK & USA) cost accounting text books and those which were used in similar empirical managerial accounting research (Rosenzweig, 1981, Kordi, 1979 and Rikabi, 1984). Specifically speaking, the measurement of the level of sophistication of management accounting techniques will be based on the application or nonapplication of the following techniques in the public and the private enterprises:

- (1) The utilization of the fixed budget as a basic cost accounting technique,
- (2) The development of flexible budgets,
- (3) The development of the capital budgeting techniques,
- (4) The application of the cost accounting systems,
- (5) The establishment and use of standard costing systems,
- (6) The quality of the inventory planning and control techniques, with special emphasis on operating rather than accounting control. This is because, and as Horngren (1980) argues:

"Management's major duty with respect to inventory control is not with clerical accuracy. In major cases, it is possible to attain excellent inventory control through visual inspection rather than through perpetual inventory records. The major inventory control problem is to maximize profitability by balancing inventory investment costs against what is required to sustain smooth operations".

- (7) The quality of the techniques of the evaluation of financial performance,
- (8) The quality of the audit (both internal and external) function.

The scope of the investigation will be extended to both the conduct of statutory and efficiency (or management) audit.

(9) Computerization of the accounting activities. It is worth mentioning that the utilization of computers to handle the accounting activities is not a cost accounting technique per se, but it is still included as its impact on the advancement of the other cost accounting techniques and the role of the controllership function in internal reporting is inevitable (Myklebust, 1976, Hopper, 1978).

Finally, the interview guidelines used to collect data on the application or non application of these management accounting techniques in both sectors are based on those used by Kordi, and Rikabi (1984). Only financial controllers will be required to answer these questions.

#### 5.3.2 The Role of The Controllership Function in Management

The term controller as used in this study, refers to the person primarily responsible for the accounting function, or the controllership function as came to be known recently. This is necessary to avoid ambiguity, as it is possible to find the title controller in different positions of organizations such as the manufacturing and the purchasing departments. The most comprehensive list of the responsibilities of the controllership function in the modern business organizations, which has been widely quoted and used for research purposes, (for instance, Henning and Mosely, 1970, Colson, 1980, and Sathe, 1982) is given by the American Financial Executives Institute. These are:

- 1 - Planning for Control. To establish, coordinate and administer, as an integral part of management, an adequate plan for the control of operations. Such a plan would provide, to the extent required in the business, profit planning, programs for capital investing and for financing, sales forecasts, expense budgets and cost standards, together with the necessary procedures to

effectuate the plan.

- 2 - Evaluating and consulting. To consult with all segments of management responsible for policy or action concerning any phase of the operation of the business as it relates to the attainment of objectives and the effectiveness of policies, organization structure and procedure.
- 3 - Economic Appraisal. To appraise economic and social forces and government influences continuously and to interpret their effect upon the business.
- 4 - Reporting and Interpreting. To compare performance with the operating plans and standards and to report and interpret the results of operations to all levels of management and to the owners of the business. This function includes the formulation of accounting policy, the coordination of systems and procedures, and the preparation of the operating data.
- 5 - Government reporting. To supervise or coordinate the preparation of reports to government agencies.
- 6 - Protection of assets. To ensure protection for the assets of the business through internal control and internal auditing and by ensuring proper insurance coverage, and
- 7 - Tax administration. To establish and administer tax policies and procedures.

Another similar definition is used by other empirical researchers.

Simon et al (1954), assumed that to be effective, the controller's department should:

- 1 - Provide information services of high quality,
- 2 - Perform these services at minimum costs, and
- 3 - Facilitate the long-range development of competent accounting and operating executives.

For the purposes of this study, however, the emphasis is on the role of the controllership function in providing adequate accounting reports and analysis to assist management in the running of the business and decision-making. The reason for this is that some functions, though important like planning for control, are expected to be covered in other parts of the thesis. Moreover, the study is not to focus on some routine functions of the controllership function like tax administration and government reporting. However, some comments on the implications of these functions for the role of the controllership function in the Sudan will be made. Therefore, the role of the controllership function, as defined and used in this study, encompasses two major functions:

- 1 - The presentation of the operating accounting data which compares performance with the operating plans, and any other useful routine accounting reports and financial information to the different management levels, and
- 2 - To prepare special accounting reports and financial appraisals to help management make the business decisions.

The emphasis on the role of the controllership function arises in line with the increasing standing of the controllership function as the functional position which provides a tremendous help in the management of the organization through compiling accounting data.

Anderson (1973), for instance, argues in this respect that:

"It is obvious that successful communication to management of the essential facts about the business is the real climax of all the effort that the controller puts into the management phase of his activities".

To operationalize the role of the controllership function as defined in this way, the chief executives and the middle managers will be asked whether or not they receive accounting reports, the structure

of these accounting reports and financial data and the frequency of those accounting reports and financial data, and their views on the usefulness of these accounting reports. For cross-checking purposes, similar questions will be put to the financial controllers.

The receipt of accounting reports does not necessarily guarantee that managers are using them or that controllers are playing a vital role in management. Therefore, no matter how sophisticated management accounting techniques are, what really matters is that management makes use of the accounting data produced as a result of the application of these techniques. Sathe (1982), for instance, argues that:

"Making quality information and analysis available is no assurance that it will be brought to bear when decisions are made".

Similar argument is raised by Saleem (1981):

"The receiving of reports is not necessarily evidence that managers are using them".

Therefore, the managers' opinions on the uses they made of accounting reports which they receive, if any, have to be solicited. The text books of management accounting identify a variety of areas in which accounting data could be used. However, the most comprehensive list of uses of accounting information by management, which is commonly quoted and referred to, and which are to be used for the purposes of this study, is given by Simon et al (1954). Accordingly, accounting data could be used to answer the following three questions:

- 1 - Score-card: Am I doing well or badly? Accounting data is used by managers to evaluate their performance, the performance of their subordinates or the performance of the company as a whole.
- 2 - Attention-directing: What problems should I look into? Accounting data could be used to direct the managers' attention to the problem areas (e.g. machine break down, work stoppage,... etc.) at the operating level, or investigating budget variances.

3 - Problem-solving: Of the several ways of doing the job, which is the best? Accounting data could be used to help management make the important managerial decisions. Needless to say, these decision areas, in view of the findings of the two case studies, could be made by management committees, and in this case one has to investigate the role of accounting data and accountants within these committees.

Therefore, to collect data about the managers' uses of accounting data, the following steps will be taken:

- 1 - Chief executives and middle managers will be asked whether or not they use accounting data and for what purposes.
- 2 - In line with the findings of the two case studies and others (Saleem, 1981, Vancil and Green, 1984) the role of management committees in decision-making and the role of controllers within these committees will be investigated as well.

### 5.3.3 The Degree of Government Control Over The Public and Private Enterprises

The idea of and reasons for the external control of organizations in general, has received a lot of attention in the organization literature. Provan and others (1980), for instance, argue that:

"Power in interorganizational networks is based not only on internal network exchanges, but also on external linkages to the larger environment".

Pfeffer and Salancik (1978) suggest that the resource dependence of organizations on their environment is one source of external control of organizations:

"While it is more common to view organizations as self-directed, making strategic decisions and vigorously pursuing courses of action, the concept of dependence suggests that organizations are partly directed by elements in their environment".

Still others go further arguing that organizations must keep a

close eye on the government activities not only because of resource dependence, but also because the government is a regulator and policy-maker as well. Dermer (1976) argues that:

"Keeping abreast of governmental activity is important for three reasons. First, the government defines the legal system in which a firm must operate. It establishes anti-trust policies, health and safety regulations, air and water pollution rules, and employment practices. Second, the government imposes costs on the company in the form of taxes and tariffs. And third, the government itself is often in the firm's market place, both as a buyer, and also as a supplier of goods and services".

Dill (1958), finds that the labour government control in two Norwegian Companies extends to determining:

- the competitiveness of the industry by imposing or relaxing import restrictions,
- accessibility to foreign facilities, such as foreign exchange, equipment, ... etc.
- the rate and direction of investment,
- the use of capital in foreign trade,
- prices and marketing practices, and
- the pay off on operations through taxes and dividends.

This discussion, therefore, tends to suggest that the government authority to control some aspects of the organization's external environment is inevitable as long as the government is the policy maker.

However, little is mentioned in empirical accounting research on the government control over organizations by virtue of ownership, particularly in the developing countries. Some management accounting researchers in the developing countries (Saleem, 1981, Rikabi, 1984) have referred to the government control over some supply sources. This study investigates the Sudanese enterprises within the public-private ownership dichotomy. The main emphasis of this study is then put on the degree of government control over organizations on the basis of ownership.

The variable 'the degree of government control' is used in this study to refer to the extent to which the government assumes control over the public and private enterprises. Moreover, the term government is used to refer to the central government bodies, basically the central ministries.

The investigation of the degree of government control over public and private enterprises will concentrate on two sources of control:

- 1 - The authority of the government to control some aspects of the business environment as a policy-maker, and
- 2 - The authority of the government to assume control on organizations by virtue of ownership.

Furthermore, the "tightness" or "looseness" of the government control over the public and the private enterprises will be measured on the extent to which the government intervenes in the management of these enterprises or forces them to follow certain practices. To operationalize this variable, therefore, the managers' and controllers' opinions will be solicited on the government control over a range of decision areas and practices suggested by the findings of the two case studies. See the interview guidelines, Section C.

#### 5.3.4 The Organization Goals

Business organizations are purposeful objects, that is, they are established to achieve certain goals. The modern organization theory has emphasized this fact. Menash (1981), for instance, argues that:

"An organization for our purposes, is a team of people working together under some specified rules to achieve some stated goals and objectives".

Indeed, one of the basic behavioural assumptions of the modern organization theory is that "those objectives which are usually viewed as organizational goals are in fact, the objectives of the dominant



members of the coalition, subject to whatever constraints are imposed by the other participants and by the external environment of the organization" (Caplan (1968)).

Before exploring the possible connections between the organization goals and the role of accounting and accountants in management as suggested by the contingency theory of MAS, we first define the term 'organization goals' for the purposes of this study. Anthony et al (1984), distinguish 'organization goals' from 'organization objectives'. They define the organization goals as "broad, fairly timeless statements of what the organization wants to achieve". The 'organization objectives', on the other hand, are defined as "more specific statements of ends, the achievement of which is contemplated within a specified time period". While accepting this definition for the purposes of this study, a relevant question which needs to be addressed in investigating organization goals relates to the persons who are responsible for the goal-setting process in these organizations. According to the assumptions of the modern organization theory, the goal-setting process rests with the dominant coalition (Coplan, 1968, Thompson, 1967, and Ray, 1979). Apparently, therefore, the definition of the 'dominant coalition' as applies to the public sector enterprises involves some government officials who have to be interviewed on the goals pursued by these organizations.

On the other hand, different categories of organization goals are familiar in the modern organization theory. Perrow (1966), for instance, distinguishes two types of organization goals:

- 1 - Operative goals: these designate the ends sought through the actual operating policies of the organization, they tell us what the organization actually is trying to do, regardless of what the official goals say are the aims.

2 - Official goals: these are the general purposes of the organization as put forth in the charter, annual reports, public statements by key executives and other authoritative pronouncements. Another useful categorization of organization goals, which are adopted for the purposes of this study, is given by Anthony et al (1984), according to whom the organization goals are viewed as:

- 1 - Economic goals: which are basically the profit maximization or generating a satisfactory level of profit.
- 2 - Social goals: which refer to those contributions an organization makes to the functioning of the society within which it operates.

However, little or no work has been done to explore the possible association between the organization goals and the role of management accounting and accountants in the management of organizations.

Perrow (1966), referring to this fact, argues that:

"Social scientists have produced a rich body of knowledge about many aspects of large scale organizations, yet there are comparatively few studies of the goals of these organizations. For a full understanding of organizations and the behaviour of their personnel, analysis of organizational goals would seem to be critical".

Theoretically speaking, the contingency theory of MAS has asserted the positive association between the organization goals and the role of accounting and accountants in the management of organizations.

Fregmen (1976), for instance, argues that:

"A basic premise of most management accounting practices is that any organization is motivated, at least partially, by economic considerations".

The role of the controllership function is viewed by some as a process contributing towards the accomplishment of the organization objectives. Henning and Moseley (1970) argue that:

"Controllership was described as such a set of processes or functions leading to the accomplishment of predetermined organizational objectives".

Similarly, Anthony et al (1984) argue that:

"For an organization to develop effective management controls, it must have clear policies and realistic programs, and these in turn, depend upon well communicated unambiguous goals. The management control process is concerned with the attainment of goals through the implementation of strategies".

To test the research hypothesis related to the organization goals in this study, the following steps will be taken:

- 1 - Chief executives of organizations will be asked to select the most important organization goal which their organizations are pursuing from among a number of key success factors,
- 2 - Additionally, as part of the dominant coalition of the public enterprises, the government officials in some relevant government bodies will be asked similar questions, and
- 3 - Moreover, managers will be asked about the considerations which they take into account when they make the major decisions in their organizations. This strategy, as the findings of the two case studies tend to support, is regarded as vital for identifying the operative goals which organizations are pursuing (Perrow, 1966, Anthony et al, 1984).

#### 5.3.5 The Organization Structure

The organization structure has been defined both in organization theory and accounting literature in different ways. Bruns and Waterhouse (1975), for instance, define the two elements of an organization structure as:

"Structure refers to internal patterns of organization relationship. Organization implies some ordering of work roles whereby the authority and resources for making decisions and performing tasks are distributed to defined positions within the organization".

Rosenzweig (1981) gives a similar definition:

"The overall structure of an organization can be characterized in terms of two classifications of factors: organizational complexity and administrative mechanisms. Organizational complexity is the extent that an organization is divided into parts along such different dimensions as number of authority levels, number of locations, and number of departments. Administrative mechanisms are those devices by which an organization assures that operations are carried out in

accordance with goals and plans, for example supervision, procedures, delegation of authority to managers,...etc."

He then uses these two dimensions to investigate the possible relationship between the controller's department and the overall organizational characteristics including mainly its context and the organization structure.

Organizational theorists, on the other hand, have identified different combinations of dimensions of the organization structure. Pugh et al (1969<sup>b</sup>) and Child (1972), identify five dimensions of the organization structure including centralization of decisions, standardization of procedures, formalization of procedures, specialization of functions, and configuration of levels in the organizational hierarchy. Similar dimensions are identified by Tricker (1976).

Bruns and Waterhouse (1975), use two dimensions of the organization structure, similar to those used by Rosenzweig (1981), to explore the extent to which the budget-related behaviour is dependent on the organization structure and context. These include:

- 1 - Structuring of activities, or the degree of formal regulation of the intended activities, and
- 2 - Concentration of Authority, which involves two aspects:
  - (i) Centralization, or the extent to which decisions are reserved to high levels in the organization,
  - (ii) Lack of autonomy, or the extent to which decisions are made outside the organization under study.

Drawing heavily on the findings of the two case studies, this study will concentrate on the extent of the concentration of authority whereby the organization decisions are made outside the enterprise level. The objective of investigating this dimension is to assess the managerial autonomy which the public and the private enterprises enjoy

by virtue of their organization structure. Though this variable might involve the authority to make decisions like the degree of government control on organizations, special emphasis is put on the impact of the extent to which another set of decisions is formally referred to the outside supervisory bodies on the role of accounting and accountants in these organizations. The emphasis is, therefore, put on how the public and private enterprises are organized, the impact of this on the managerial autonomy of these organizations and the role of management accounting and accountants in these enterprises.

The contingency theory of MAS suggests a close link between the role of management accounting and accountants and various dimensions of the organization structure. Waterhouse and Tiessen (1978) maintain that:

"Since our conceptual scheme suggests that the nature of organizational control is dependent on the type of organizational structure, which in turn is contingent on technology and environment, the implication is that management accounting systems will need to be designed to meet the specific control requirements of specific organizational units".

Similarly, Saleem (1981) finds that the role of accounting and accountants in the management of the Iraqi cement industry is negatively affected by the multiplicity of the authority levels formally authorized to make decisions.

To operationalize this variable, the following steps will be taken:

- 1 - Chief executives will be asked about the organization chart of their enterprises, and
- 2 - Chief executives will be asked whether or not their enterprises are managed by outside public corporations or parent companies and their comments on the formal authority relationships between their organizations and these public corporations and parent companies, if any.

#### 5.3.6 The Organization Size

Both the descriptive and empirical accounting studies suggest a strong relationship between the role of accounting and accountants in the management of organizations and their size. Ronson, for instance, argues that the role of accounting and accountants in the private industrial organizations in the developing countries varies according to the size of organization. He states that:

"The state of accounting varies generally with the scale of the enterprise".

Similarly, Savage (1967) argues that:

"As the business enterprise increases in size and complexity, management is less and less able to satisfy its need for control information by means of personal contacts and observations".

Rosenzweig (1981), in an exploratory study of the relationship between the controller's department and the overall organizational characteristics, concluded that:

"Overall organization size, as measured by number of company employees, had frequent large correlations with controller's department variables".

Other empirical accounting studies still cast doubts on the impact of size on the role of accounting and accountants in management (Rikabi, 1984).

To collect data on this variable, the chief executives will be asked about the number of employees in their organizations. Because this study includes both manufacturing and service organizations, extreme care has to be taken to avoid the problems due to the different types of organizations included in the research (Kimberly, 1976). To deal with this situation, the impact of size on the role of management accounting and accountants in the sample companies, will be analyzed and interpreted according to whether a company is in the manufacturing or the hotel industry, though still within the public-

private ownership dichotomy.

### 5.3.7 The Organization History

The findings of the two case studies tend to suggest that the role of accounting and accountants in management or organizations could be affected by historical events which the organizations might experience. Other empirical accounting studies suggest a number of historical dimensions that tend to have an immediate impact on the role of accounting and accountants in management. Rikabi (1984), for instance, argues that:

"The practice in organizations cannot be perceived away from its history, because it always had a very important effect on the management practice".

To collect data on the organization history, in line with the findings of the two case studies, the chief executives' opinions will be solicited on the following aspects:

- (1) Whether or not, there were any changes in the organization, the ownership, or business of the enterprise,
- (2) Whether the organization was managed by a foreign consultancy firm on the basis of a full management contract, and
- (3) Whether the organization has employed expatriate staff in the management or the controllership functions.

### 5.3.8 Management Education Background

Management nowadays, like any other profession, requires specialized and properly trained managers. It is therefore, widely believed that management education background has a strong relation with the role that accounting and accountants could play in management. Sathe (1982), for instance, maintains that:

"Executives with high financial ability tend to be financially oriented".

Closely related to the impact of management education background

on the role of accounting and accountants in management, is the management training. This is because training in accounting and management principles may help managers to appreciate the potential that accounting and accountants could provide in the management of the organization. Ronson states that:

"As regards training of managers, courses, lectures and seminars should develop an appreciation of the value of accountancy among persons having managerial responsibilities".

On the basis of these arguments and to test our research hypothesis on the impact of the management education background on the role of accounting and accountants in the management of the public and private enterprises, one could distinguish two types of management:

- (i) Professional management, which is dominated by managers whose undergraduate education background is in some fields which could be directly related to the management of business organizations, such as business administration, accounting, hotel management, or economics, and
- (ii) Non-professional management, which is dominated by managers who have got their undergraduate education background in some fields which are not directly related to the management of business organizations, such as engineering, arts, ... etc.

Having said that, the following steps will be taken to operationalize this variable:

- 1 - The chief executives, that is, the general managers and their deputies, will be asked about their basic qualifications and their fields of study. The reasons for selecting the chief executives for this purpose are two-fold. First, we consider the chief executives as the most influential persons in Sudan. Second, to avoid the measurement problems that might arise if other middle managers or members of the board of directors are included. For



instance, some middle managers, by virtue of their positions which vary from one organization to another, have to be engineers, for example, workshops and production engineers. On the other hand, the inclusion of some directors may not give a fair representation for the public and the private enterprises, because all the public enterprises have no boards of directors.

- 2 - Chief executives will be asked about whether or not they attended any training courses, the duration of these training courses, and the emphasis of these training courses, seminars or workshops.

#### 5.3.9 Management Attitudes Towards The Role of Accounting and Accountants in Management

The role of accounting and accountants in the management of organizations is affected by the attitudes of managers towards the potential that accounting and accountants could offer to help them manage their organizations as efficiently and effectively as possible. The modern role theory argues that the behaviour in a given set is influenced by the role senders (managers in this case) with whom the focal person (the controller in this case) is dealing. Katz and Khan (1968) argue that:

"Each individual in an organization acts in relation to and in response to the expectations of a role-set".

Indeed, it is widely believed that the current status of accounting and accountants in the West has emerged because of positive management attitudes towards the role of accounting information and controllers in management. Sathe (1982), for instance, finds a strong positive association between controller's involvement in management of some American manufacturing companies and management expectations regarding the role of controllers. He concludes that:

"Management's expectations regarding the controllers role can also influence controller involvement".

Therefore, to collect data on the management attitudes towards the role of accounting and accountants, the following steps will be taken:

- 1 - Chief executives will be asked about the level of importance which they attach to the role of accounting and accountants in the management of their organizations,
- 2 - Chief executives will be asked about the areas in which controllers could help them to run their organizations, and
- 3 - Finally, the chief executives will be asked about whether or not their organizations have got a job description for the position of the financial controller, and if so, copies will be obtained and their contents investigated and analyzed.

#### 5.4 The Research Design

In Chapter 1 a literature survey of the management accounting studies in the developing countries was conducted. Accordingly, it was quite evident that the hypothesis-testing studies based on research case studies are lacking. Consequently, this study is designed with a view to introduce and persuade the hypothesis-testing studies and the use of the research case studies in empirical management accounting research in the developing countries. This is exceptionally true as this study tests the potentials that the use of case studies can offer in investigating the management accounting and accountants practices in the developing countries, and consequently the possibility and viability of its use for further empirical research.

##### 5.4.1 Selection of Industries

As we have already pointed out in Chapter 1, this study is basically meant to be a comparative one between the Sudanese public and private enterprises. Therefore, the selection of two manufacturing

industries, that is, textile and food industries, in addition to another service industry, that is, the hotel industry, could be justified on the following bases:

- 1 - The importance of the manufacturing industries to the Sudanese economy. Despite the fact that no statistical information is available as to the exact contribution of these industries to the GNP, which is generally insignificant, nevertheless, the importance of these manufacturing industries stems largely from their import-substitution nature, though this is controversial (Pang, 1982).
- 2 - The inclusion of a service industry, that is, the hotel industry, is meant to avoid another limitation of the empirical accounting studies in the developing countries which have concentrated on the manufacturing industries to the complete exclusion of the service industries. It would seem that this problem is common to accounting research in general. Kazandjis (1980) argues:

"The existing body of accounting literature, both empirical and conceptual, has mainly focused its attention on private organizations and on manufacturing enterprises in particular. Public sector institutions and service organizations seem to have been neglected".

- 3 - There is a sufficient number of companies in these industries within the two sectors to facilitate this comparison as table 5.1 shows.

Table 5.1: No. of Public and Private Enterprises in the Sample Industries

Industry	No. of companies in each industry*	
	Public Sector	Private Sector
Textile	7 (3 of which are not operating)	8 (2 of which are not operating)
Food	6 (3 of which are not operating)	Not Available* 2 <sup>8</sup>
Hotel	4 (classified hotels)	6 (classified hotels)

\*Reference: (Important Industries in Sudan, First National Economic Conference, Khartoum, Sudan, December 1984. As an agro-industry, there are large and small companies in full

operation in the food industry though no exact statistics is available.)

- 4 - There are different sizes of companies in these industries and within the two sectors which would enable us to test the hypothesized effect of size.
- 5 - Unlike the previous research on management accounting and accountants' practices in the developing countries, this study is extended to two manufacturing industries and a service industry. This is done with a view to reflect the role of management accounting and accountants in as many industries in a developing country as possible rather than one manufacturing industry.

#### 5.4.2 Selection of The Sample Firms

Because this study involves three industries, two in the manufacturing sector and one in the service sector, it is impossible to cover all the enterprises in these industries given the limited research time. Therefore, the sample size is expected to include two pairs of public and private enterprises in each industry, that is, two public and two private enterprises in each industry. To do so, certain criteria are taken into consideration when selecting firms within these industries in both sectors. Accordingly, the sample firms chosen according to these considerations are by no means randomly selected. However, it is hoped that this will not affect the soundness of the conclusions of the study and the reflection of the practices in both the public and private sector enterprises. Furthermore, in view of the possible bias emerging from this relatively small sample, it is expected that the following selection criteria would accommodate all the potential differences among the population from which the sample is to be chosen. Therefore, taking into consideration the fact Sudan is a less industrialized developing country, the following criteria

are to be used for selecting the sample firms.

#### 5.4.2.1 The Public Sector Enterprises

The criteria for selecting public enterprises are as follows:

- 1 - It is not always necessary to visit all the public sector enterprises to conduct the research. In the textile industry, for instance, six factories are identical in every element. They have been erected by Belgian contractors, financed by a Belgian credit and three of them had started operations at the same time. Therefore, out of these six factories which constitute almost all the public textile industry, one needs to visit only one factory, in addition to another one which was erected by the Chinese government. Over and above these two textile factories, reference will be made to Rikabi's (1984) findings in the other public textile factories where appropriate to supplement the findings of this study. Needless to say, there is no point to investigate some public textile and food enterprises which are not operating (see table 5.1) at the time of the study.
- 2 - It is impossible to investigate all the public sector enterprises with such time constraint imposed by the time available for the research. This is mainly because public sector enterprises are geographically dispersed throughout the country, which like most of the developing countries, has poor transportation and communications facilities. Therefore, four of the public sector enterprises, to be investigated, that is, the two food companies and the two hotels, are situated in Khartoum (the capital), whereas the other two textile factories are located in the Central Region which has good transportation facilities.
- 3 - To the extent possible, public sector enterprises with different sizes are included to investigate the hypothesized impact of the

organization size on the role of accounting and accountants in the public enterprises. On the basis of these criteria, therefore, six public enterprises are to participate in this study.

#### 5.4.2.2 The Private Sector Enterprises

In the private enterprises, on the other hand, the basic criterion for selection from among the private enterprises is the inclusion of organizations of different sizes as the major variable in which the private organizations may differ. Another criterion, which is referred to with respect to the public enterprises, is the location of the enterprise in the capital. A private hotel run by a foreign management is specially selected to investigate the impact of the foreign influence, if any, on the role of accounting and accountants in the management of the hotel.

### 5.5 Data Collection

As the data collection process is the most important step in the next stage of the research, the research methods to be used, the interviewees to participate, and the content of the interview guidelines to be used in the data collection process, should be properly chosen and constructed.

#### 5.5.1 The Research Method

Originally, it was decided that at least some of the research hypotheses, basically the role of the controllership function in management, would be properly tested by means of direct interviews, being supplemented by participant observation. This is because of the unique characteristics of this method, which is considered to be important to investigate how influential financial controllers are and how managers go about using the accounting data [The results of this participation will be reported in Chapter 7 in connection with the first public food

company, where the researcher stayed for more than one month]. However, upon the refusal of the private sector enterprises to accept the researcher for a long time and their insistence on making appointments as a condition to visit these organizations, the idea of acting as a participant observer collapsed and abandoned. Instead, the researcher decided to depend on direct interviews, as the basic and the sole research method.

Accordingly, it is hoped that interviewing, as a basic research method, would enable the researcher to collect the necessary information to test the research hypotheses. By virtue of its flexibility, it is expected that interviews will be used to probe more issues coming out of the conversation and exploring new facts emerging from the interviewing process. Brenner et al (1985) referring to the flexibility of the interview, argue that:

"Yet, because the interview as a research tool is very flexible, it can deal with a variety of subject matter at different levels of detail or complexity".

It is these characteristics of interviewing that may have induced many to recommend the use of interviews for hypothesis-testing purposes. Denzin (1978), for instance, argues that:

"The investigator simply has a sense of what information is needed for his theory, and he attempts to gather that information. With this method, there is a more fluid and constant interaction between hypothesis and questions. The investigator uses each respondent or subject as a source and test of hypotheses".

Similarly, Kerlinger (1973) considers interviews as a basic research tool to test the research hypotheses. He maintains that:

"The most important use of interviews should be to study relations and to test hypotheses".

Therefore, it is the intention of this study to use this research method in the next stage of research. Only questions of Section (A) are of a structured interview type. Nevertheless, the respondents are

still given a chance to select the appropriate answers according to their own views and opinions. The bulk of the interview guidelines, however, are of an open-ended type. This is basically done with a view to probe more issues, and above all, to give the respondent the chance 'to tell his own story'. Bearing in mind the disadvantages of interviews as a research method, it is hoped that this basic research method will be used without its limitations which are emphasized by the social research methods books.

#### 5.5.2 Persons Participating in The Research

In this study, it is expected that a group of persons in each enterprise will take part with a view to test the major research hypotheses. Accordingly, it is expected that the following positions will be interviewed in the next research stage:

- 1 - Chief executives, that is, both the general managers (or the managing directors) and their deputies, to represent the top management,
- 2 - The production and marketing (or sales) managers to represent the middle (operating) management. These two management positions, after all, are the most important in the Sudanese enterprises.
- 3 - The financial controllers.

In addition to these positions, as we already argued, it is necessary to solicit the opinions of some government officials in the relevant government departments, which supervise the public enterprises. This will include asking their opinions on the organization goals of the public enterprises and the way the major decisions are made. The relevant open-ended questions put to the interviewees in these companies, will be used as guidelines for our interviews with the government officials.



### 5.5.3 The Questions Content

The interview guidelines, shown in Appendix A, are structured in such a way as to serve the following objectives:

- (a) To make a logical connection between the conceptual framework and the questions. This is done with a view to operationalize these contingent variables, collect data and test the research hypotheses, and
- (b) To facilitate convenient analysis of the data.

Accordingly, therefore, the different sections in the interview schedules test different hypotheses. For further details on the structure of the interview guidelines and the persons required to answer them, see Appendix A. Briefly speaking, the interview guidelines contain the following sections:

- 1 - Section A. Relates questions to the level of sophistication of management accounting techniques, and tests hypothesis 1.
- 2 - Section B. Relates questions to the role of the controllership function in management and the managers' use of accounting data, and tests hypothesis 2.
- 3 - Section C. Relates questions to the degree of government control and tests hypothesis 3.
- 4 - Section D. Relates questions to the organization goals and tests hypothesis 4.
- 5 - Section E. Relates questions to the organization structure and tests hypothesis 5.
- 6 - Section F. Relates questions to the organization size and tests hypothesis 6.
- 7 - Section G. Relates questions to the organization history and tests hypothesis 7.
- 8 - Section H. Relates questions to the management education background

and tests hypothesis 8.

- 9 - Section I. Relates questions to the management attitudes towards the role of accounting and accountants and tests hypothesis 9.

#### 5.6 Data Analysis

The data analysis and interpretation is the final step in the second stage of the research. It is to be done with a view to obtain answers to the research questions and to test the research hypotheses stated earlier in the first stage of the research. Therefore, the findings of the research are analyzed, interpreted, and produced in both the second and the third parts of the thesis. As the questions raised to collect data are already categorized in sections to test the research hypotheses, the results of the analysis will be reported using the same categorization. This is deemed appropriate to tackle the research questions and hypotheses. Kerlinger (1973) maintains that:

"If categorizations are not set up according to the demands of the research problem, then there can be no adequate answers to the research questions".

Finally, the analysis of the research findings are not to be made in isolation of the available body of knowledge. Therefore, the findings of the study and its implications are to be related to the current body of knowledge on the role of accounting and accountants in the management of enterprises of the developing economies.

#### 5.7 The Structure of The Thesis

The thesis basically consists of four parts. Part One represents the first stage of the research. That part established the need for the use of research case studies in accounting research in general and in the developing countries in particular, and prepared and analyzed the two case studies in order to develop the research problem and hypotheses, construct the methodology necessary to tackle and test the

research problem. Parts Two and Three report the findings of the empirical study. Part Two is a pure descriptive one and presents the state of the art of the role of accounting and accountants in the management of the Sudanese public and private enterprises. Part Two tries to answer the first research question, that is, whether or not there are differences in the role of accounting and accountants in management between the public and the private enterprises. Part Three is an analytical one, and tries to answer the second research question, that is, why the differences in the role of accounting and accountants in the management of the public and the private enterprises exist or do not exist. Finally, Part Four brings the findings of the study to a conclusion. This part contains a general look at the research findings in the context of the developing countries studies of management accounting and their theoretical implications for the current state of knowledge, the implications of the study for future research, and the policy implications of the research findings for the Sudan.

PART TWO: MANAGEMENT ACCOUNTING TECHNIQUES AND THE ROLE OF  
THE CONTROLLERSHIP FUNCTION IN SUDANESE PUBLIC  
AND PRIVATE ENTERPRISES.

## Chapter 6

### The Level of Sophistication of Management Accounting Techniques in The Public and Private Sector Enterprises

#### 6.1 Introduction

This chapter discusses the application and nonapplication of the Western (USA and UK) management accounting techniques, which are identified in the previous chapter, in some selected Sudanese industries. To be in line with the main thrust of the thesis, this discussion is to proceed within the public-private ownership dichotomy. The analysis of the findings of this chapter is based on the responses of the financial controllers of the sample companies and hotels to the direct questions asked by the researcher (see Section A of the interview guidelines, Appendix A). Most important, this chapter is meant to be purely descriptive in the sense that it only describes the application and nonapplication of the Western management accounting techniques in the public and private sector enterprises. The reasons (or why) underlying these practices is the focus of chapters 8,9 and 10 in the third part of the thesis.

#### 6.2 The Budgeting System

The budget, as a basic cost accounting technique, proved to be an important tool for profit and non profit organizations, for small and large organizations as well, and for a variety of reasons as well. Horngren (1980), for instance, argues that:

"Budgets are a major feature of most control systems. When administered intelligently, budgets:

- a - compel planning,
- b - provide performance criteria, and
- c - promote communication and coordination".

##### 6.2.1 The Budgeting System in The Public Sector Enterprises:

The budgeting system in the public sector is quite distinct from

the one of the private sector enterprises in terms of its range, structure and objectives. For this reason it warrants a separate consideration.

#### 6.2.1.1 Controllers' Emphasis on The Short-term Budget:

All the financial controllers of the public sector enterprises, without exception, showed little or no interest at all in formulating long-term budgets; that is, budgets for more than one year.

Instead, they concentrate on the short-term (annual) budgeting. When asked about the reasons for this, the financial controllers made it clear that they have not got the freedom to set up their own long-term budgets. This is basically because the government, represented by the Budget Administration, of the Ministry of Finance and Economic Planning, maintains tight control over budgets of the public sector enterprises. The government control over budgeting in the public sector enterprises includes issuing the government fiscal policies on the basis of which budgets are to be estimated at the beginning of each financial year, the budget formats and structure, and the final approval of these budgets (for further details, see Chapter 8, Section 8.4). Moreover, the Government Financial Statutes, which are strictly adhered to in the public manufacturing companies and hotels, make it clear that the time span of the budgets and financial year in the public enterprises should start by the beginning of July and finishes by the end of June in the next year. This coincides with the time span of the General Budget of the Central Government (for further details see Chapter 8, Section 8.1).

Thus, the two financial controllers in the textile industry, made it clear that they have no option other than annual budgeting, as their budgets are simply part of the overall government budget. One of them stated that:

"Because our budget is linked with the state budget, which is prepared annually".

And the other financial controller provided a similar argument:

"Our budget is part of the corporation's (Textile Corporation) budget, which in turn is part of the budget, and we are not free and independent to set up long-term budgets. This in addition to the rapid economic and political changes in the country. We do not now know whether we are a public or a private company !!"

In the food and hotel industries, while asserting the fact that it is not up to them to set up long-term budgets for the reasons mentioned above, the financial controllers added other reasons which they thought hampered long-term planning. Financial controllers in the two food companies said that the government intended to privatize their companies a long time ago. This created a state of instability among the employees and workers with respect to their entitlements as ex-government employees if these plans went ahead, and the possibility of forced redundancy if the private sector took over. The two controllers argued respectively that:

"The President of the Republic declared that the food sector should quit the public sector, but the decision was not carried out. People in the factory then started to think about their fate rather than planning for the future".

And that:

"The fate of the factory is not yet known, and these circumstances do not enable us to think about long-term plans".

(N.B: the restructuring measures in the public industrial sector are to be discussed in detail in Chapter 9).

Financial controllers of the two hotels, on the other hand, expressed difficulty in establishing long-term budgets due to the sensitivity of the hotel business to the economic and political changes in the country. Both controllers argued respectively that:

"We have not got long-term plans due to the nature of our business. We cannot determine the number of residents for long periods, because it is linked with the economic and political changes in the country. In the past for instance, we used to have a lot of residents

during May and December, when the country celebrates the revolution and the Republic anniversaries. With the new government, now the whole thing is changed".

And that:

"You cannot control the revenue side of the budget. For instance, the application of the Sharia (Islamic Law) reduced our revenues significantly last year".

This is because the Sharia requires separate facilities (swimming pool, cinema, cafeterias ... etc.) for males and females and because wine and pork are banned. This put off significant numbers of residents and visitors according to the financial controllers.

In conclusion, therefore, the long-term budgeting is lacking in the public sector enterprises. This is mainly because, as government units, the public sector enterprises are required by law to conform to the Government Financial Statutes and instructions to prepare and structure their budgets within the time limits specified by these regulations. Failure to comply with these government regulations and instructions implies the disruption of the overall General Budget of the Central Government, and consequently these enterprises will run the risk of having even no short-term budget. For instance, according to the Government Financial Statutes, all the public enterprises should submit their budget proposals to the Budget Administration two months earlier before the beginning of the financial year in July. This will leave the Budget Administration and the Ministry of Finance ample time to go through the normal channels of passing the budget. Upon failure to submit the budget proposals on these due dates, the Budget Administration keeps urging the public enterprises to send their budget proposals. Two financial controllers, one in the first food company and the other in the second hotel, showed the researcher two letters from the Budget Administration, urging them to submit their budget proposals. One of these letters reads as follows:



"As the importance of this matter (i.e. preparing the company's budget proposals) is known, since it does not end up in submitting proposals, and there is a range of other procedures to prepare the state budget, and as the delay of a single stage of the preparation stages results in delaying the submission of the budget to the top authorities on time as specified by the constitution, which means accountability of those responsible for the delay. Accordingly, we address you as state officials to send us your budget proposals as soon as possible".

The second letter, emphasizing the same point, went a bit further threatening to drop the hotel's budget from being considered altogether.

Part of the letter reads as follows:-

"We are sorry that we have not received your budget proposals for the year 84/85 until now, though we emphasized in our annual letter the inevitability of preparing the state budget and its submission to the top authorities on time, and that any delay from the government units results in delaying the whole budget. We are sorry to express our intention to drop your budget unless submitted by the twentieth of this month to avoid delaying the submission of the General Budget on time as stipulated in the constitution".

If this threat is carried out, it means that the company will have no annual budget. This is basically because if the budgets of these hotels and companies are not approved by the Budget Administration, they will not receive any subsidies from the Central Government. This is especially true if these budgets show deficits which is the case of the manufacturing companies which incurred huge losses during the last five years.

#### 6.2.1.2 The Structure of The Budget of The Public Enterprises:

The structure of the budget of the public sector enterprises, whether in the manufacturing or hotel sectors, follows a unified general pattern. Thus, the annual budget is structured according to the instructions of the Budget Administration, of the Ministry of Finance and Economic Planning. These instructions are incorporated in the Budget Preparation Manual, which explains in detail the various budget formats and items to be followed with a view to estimate the budgets of the Central Ministries, Government Departments and the Public Corporations

and Enterprises, which are almost identical. As the individual budgets of these government-owned bodies constitute the overall state budget, and as they are subject to the final approval of the Budget Administration of the Ministry of Finance, as will be explained later, rigid adherence to these formats and items specified by the Manual is required and inevitable. When asked why their budgets are structured in such a manner, the following answers given by the financial controllers of the public enterprises are typical of many.

"We are a public sector company and our budget is based on the instructions from the Ministry of Finance. They tell you that your budget should be structured this way (showing the researcher the Manual). They will not discuss your budget unless prepared in the way they like it".

"Mainly because we are a government unit and our budget is investigated and passed by the Ministry of Finance together with the budgets of the Ministry of Health, the Ministry of Works, and others. Though we have different items, our budget is the same traditional budget prepared in the government departments".

And that:

"Our budget is classified in the same way as the state budget".

Consequently, the financial controllers of the public sector enterprises should fill in a series of standardized budget formats and items in order to estimate their final budgets. For illustrative purposes, these budget formats and items are to be discussed below.

Generally speaking, though these budgets may include the same components as in the budgets of the private sector, the budget of all the public sector enterprises consists mainly of two sides: the Expenditure side and the Revenue side.

#### A. The Expenditure Side of the Budget

The Expenditure Side of the budget could be classified into three major chapters as follows:

(1) Chapter One. This part includes mainly all the salaries and

wages payments for managers, employees and workers, in addition to other benefits such as bonuses and allowances. To prepare the budget estimates of this part of expenditure, financial controllers have to fill in the Budget Format Number 1, which contains the various expenditure items in this chapter such as permanent and seasonal salaries and wages, mileage and overtime allowances, and pension and social insurance payments.

(2) Chapter Two. This part of expenditure shows two categories.

First, the operating expenditures, which basically include the expenditure items of the purchases of raw materials, fuel, water, depreciation of machinery, workers' insurance and other expenditure items which are directly traceable to the production function. In the case of the hotels, this part includes the purchases of food and beverage stuffs and other materials directly related to the production of services (accommodation and food services). Second, the general expenditure items such as stationery, insurance, depreciation, interest on capital invested, ... etc. which are general to the companies and hotels. The Budget Format Number 2, which contains these expenditure items, is used to estimate Chapter Two.

(3) Chapter Three. This part of expenditures contains capital expenditures on small development projects such as air conditioners, vehicles, equipment, and new buildings. The Budget Format Number 4 is used to estimate the expenditure items within Chapter Three. It is worth mentioning that these budget formats, being normal sheets of paper, identify a wide range of budget items which are meant to be exhaustive, that is, accommodate all the possible expenditure and revenue items to be estimated for any financial year. Moreover, the financial controllers have to fill in two columns. The first column shows the budget estimates for the current financial year, whereas

the second column shows the budget estimates for the last year.

B. The Revenue Side of The Budget

The other side of the budget, which is equivalent to the production and sales budgets in the private sector, shows the budgeted revenues. In the public manufacturing companies this part of the budget shows revenues from the sales of goods, which is merely the expected production figures for the different products times provisional prices, in addition to other sources of revenues such as rent, interest, capital gains, ...etc. In the hotel industry, this part shows revenues from the room rates and other services such as telephone, telex, swimming pool and laundry. To estimate this revenue side of the budget, the Budget Format Number 5 is to be filled in.

As all the previous budget formats are intermediate stages to formulate the master budget of the public sector enterprises, the Budget Format Number 6 is designed to bring the previous estimates to a conclusion, in which the budget shows either a deficit or a surplus. At this stage all the estimated revenues for the next financial year are listed at the top of the budget format in a less detailed manner. Then come the total expenditures of the company for the next financial year which consist of Chapters One and Two. Subtracting these expenditures from the company revenues shows whether the budget proposals of the company or the hotel ends with a deficit or a surplus.

As the setting up of the budgets of the public sector enterprises does not end at this stage, these budgets are therefore integrated in the overall state budget, officially known as the General Budget of the Central Government. Therefore, the discussion of the structure of the budget of the public enterprises will not be complete without being linked with the state budget. For this reason we discuss very briefly the structure of the state budget and how the budgets of the

public enterprises are linked to it. The state budget, in its simplest form as shown on table 6.1, is a summary of the individual budgets of the Central Ministries, Government Departments, and the Public Corporations and Enterprises. It basically consists of the three chapters of expenditure in the expenditure side, and where applicable the revenues to be collected by these ministries and government departments in return for the services rendered to the public. Apart from these expenditures and revenues assigned to these government bodies, the state budget identifies two other main categories of expenditure and revenues. The first expenditure category, termed as the National Centralized Obligations, includes expenditure items such as the provisions for the public expenditure, subscription fees in the international and regional organizations, pension payments, the defence expenditure, and subsidies for the public corporations and enterprises. The other revenue category, termed as the National Centralized Revenues, includes the direct and indirect tax revenues, and the non tax revenues which basically consist of profit from the banking system, landsales, miscellaneous, the budget surpluses of the public corporations and enterprises, and the interest on the capital invested in the public corporations and enterprises.

The inclusion of the budgets of the public sector enterprises into the overall state budget, structured in the way described above, depends on whether the budgets of the public enterprises show deficits or surpluses. If the budgets of the public enterprises show deficits, this means that the government has to subsidize this deficit. These subsidies are then to be included in terms of money in the National Centralized Obligations as subsidies for the public corporations and enterprises. On the other hand, if the budgets of the public enterprises

show a surplus, then this surplus is incorporated in the overall state budget under the category of the National Centralized Revenues, according to whether this surplus is from budget surpluses or interest on capital invested in the public corporations and enterprises.

Finally, and since the budget of the public enterprises is a basis for estimating the overall state budget, public enterprises are required by law to operate within the approved budget. Any departure from the approved budgets may disrupt the economic and fiscal policies of the government upon which these budgets are based. For further details, see Chapter 8. Therefore, under the circumstances which necessitate extra expenditure, the Budget Administration of the Ministry of Finance, should be notified and its approval is essential. Moreover, it is the joint responsibility of both the General Managers and the Financial Controllers of the public enterprises to control the approved budget according to the government financial statutes. In Chapter 7 we will discuss how the General Managers and the Financial Controllers of the public factories and hotels discharge this responsibility and its implications for the role of the controllership function in the public enterprises.

#### Summary of the Budgeting System of The Public Enterprises

Following the detailed discussion on the budgeting practices in the public sector enterprises, one could reach the following conclusions:

- 1 - The annual budget of the public enterprises is mainly used as a vehicle for estimating the overall state budget and to control expenditure, rather than being a tool for planning, control, and performance evaluation.
- 2 - Another feature of the budgeting practices in the public enterprises is that the structure of the budget is typical to the

traditional budgeting in the Central Ministries, the Government Departments, and the public utilities (e.g. hospital, universities) which are mainly involved in rendering services to the public without the motive to achieve profits. It is quite evident, therefore, that the public enterprises follow the government budgeting practices in a blind manner and without adaptation or modification to suit the commercial nature of these enterprises (though this itself is a hypothesis subjected to test in this study). Indeed, it appears that the budgeting practices in the Sudanese public enterprises is strange even when compared to their counterparts in the other developing countries. Premchand (1983), discussing the various types of budgeting links between the government and the public enterprises in a number of developing countries, refers to this point arguing that:

"In the case of the departmental enterprises, whose budget follows the conventional budget structures of government, estimates of receipts and outlays may not follow commercial formats and may be in total conformity with government budget. In some countries, for example, Sudan, even the commercial public enterprises may prepare their budgets in terms of the government chapters, viz., salaries, material and capital equipment".

These budgeting practices are identical to those reported by Rikabi (1984) in other public textile enterprises.

#### 6.2.2 The Budgeting System of The Private Enterprises

The setting-up of the budgets in the private enterprises ranges from the application of long and short-term budgets to the nonapplication of budgets at all. In addition to being a useful technique for planning and control, the budget is used effectively for performance evaluation purposes by virtue of the budget follow-up reports, as will be discussed in the next chapter.

Table 6.1: The Structure of The State Budget

Revenues		The Government Unit (The following list is illustrative rather than exhaustive)	Chapter 1		Chapter 2		Chapter 3	
83/84	84/85		84/85	83/84	84/85	83/84	84/85	83/84
Ls	Ls	1) Ministry of Health and Social Welfare	Ls	Ls	Ls	Ls	Ls	Ls
xx	xx	* Health Department	xx	xx	xx	xx	xx	xx
		* Social Welfare Department	xx	xx	xx	xx	xx	xx
		2) Chamber of The Attorney General						
xx	xx	* Chamber of The Attorney General	xx	xx	xx	xx	xx	xx
		* The Companies' Registrar	xx	xx	xx	xx	xx	xx
		3) National Centralized Obligations						
		* Defence Expenditure	xx	xx	xx	xx	xx	xx
		* Subsidies of Public Corporations	xx	xx	xx	xx	xx	xx
		4) National Centralized Revenues						
xx	xx	* Tax Revenues						
xx	xx	* Non-tax Revenues (e.g. interest on capi-						
xx	xx	tal invested and returns from public enterprises)						
(xx)	(xx)	5) (Deficit) Surplus						
Ls xx	Ls xx	Total	Ls xx	Ls xx	Ls xx	Ls xx	Ls xx	Ls xx



### 6.2.2.1 Long-term Budgeting in The Private Enterprises

As far as the long-term budgeting (i.e. budgets for more than one year) is concerned, it is clear that the private enterprises showed more interest in setting-up long-term budgets than the public enterprises. Table 6.2 shows the private enterprises preparing the long-term budgets and the activities for which budgets are prepared. It shows that only the second food company prepared a three-year budget for all the mentioned activities, that the first hotel prepared a five-year budget for all the mentioned activities except for capital expenditure, and that the first textile company prepared a two-year budget for only the production and sales activities. The other two manufacturing companies and the second hotel gave different reasons for not adopting long-term budgets.

In the textile industry, the financial controller of the second company identified two major reasons for not setting up a long-term budget.

Table 6.2: Activities For Which Long-term Budgets Are Prepared in The Private Sector:

Budgeted Activities Companies	Production	Sales	Capital Expenditure	Budgeted Profit (P/L A/C & B/S)
Textile Industry				
Company 1	✓	✓	—	—
Company 2	—	—	—	—
Food Industry				
Company 1	—	—	—	—
Company 2	✓	✓	✓	✓
Hotel Industry				
Hotel 1	✓	✓	—	✓
Hotel 2	—	—	—	—

First, before the financial controller (a Canadian Cost and management accountant) joined the company in early 1984, the financial statements of the company were lagging behind, and therefore top priority was given to update them, rather than setting up long-term budgets. The second reason is the turbulent economic and political environment of the country. In this respect, he referred to the shortage of hard currency, the often electricity cuts, and the ever changing regulations of the Bank of Sudan concerning the remittance of the hard currency earned by the company from exporting the yarn counts. He argued that:

"How are you expecting me to set-up a long-term budget in these circumstances? It is going to be only an academic exercise".

In the first food company, the financial controller attributed the non-application of the long-term budgets to the lack of information. He made it clear that:

"We have no information upon which to draw long-term budgets".

Finally, the financial controller of the second hotel showed no interest in establishing either short-term or long-term budgets, and he attributed this to the fact that their hotel is passing through a construction stage. These statements of the financial controller tend to suggest the difficulties faced in estimating and adopting the long-term budgeting systems in the private enterprises. These statements make it clear that one should take into consideration the developing nature of the Sudanese economy in investigating the application or non-application of some management accounting techniques. Bearing this in mind, one could question the viability of setting up long-term budgets in such a hostile environment. This is particularly due to the everchanging exchange rate of the US\$ to the Sudanese pound and the ever increasing inflation rates. These frequent changes could leave the long-term forecasts obsolete as soon as they are estimated.

Therefore, it would appear that, given this turbulent environment, some private enterprises found no choice other than concentrating on the annual budget. Even the private enterprises which establish long-term budgets have to keep changing and amending estimates every now and then.

#### 6.2.2.2 The Structure of The Short-term Budget

As far as the short-term budget (annual budget) is concerned, all the private sector enterprises, except the second hotel, prepare annual budgets for some or all of their activities. Apparently, therefore, as table 6.3 shows, the short-term budget is widely prepared in the private sector. Though the contents of the short-term budget vary from one organization to another, yet the budget contents are almost the same. The contents of the operating budgets are always included in a book of several pages. These operating budgets normally start with a budget summary showing the revenues from sales (or the room rates in the case of the first hotel), the operating expenses and then the operating deficit or surplus. The budget book then shows a detailed break down of all the operating revenues and the operating and non-operating expenses by department.

In the manufacturing sector, according to table 6.3, two companies, the second textile company and the second food company, prepare short-term budgets for all the activities mentioned, the first textile company prepares a short-term budget for sales, production and cash. In the private food industry, the first food company prepares an annual budget for both production and sales. In the hotel industry, on the other hand, the first hotel (Khartoum Hilton Hotel) prepares annual budgets for all the activities, but the second hotel did not apply any budgeting system at all. The major components of the short-

term budget (annual budget) could be discussed in more detail as follows.

Table 6.3: Activities For Which Short-term Budgets are Prepared in The Private Enterprises

Budgeted Activities Companies	Sales	Capital Expenditure	Cash	Production	Budgeted Profit (P/L A/C & B/S)
Textile Industries					
Company 1	✓	—	✓	✓	—
Company 2	✓	✓	✓	✓	✓
Food Industry					
Company 1	✓	—	—	✓	—
Company 2	✓	✓	✓	✓	✓
Hotel Industry					
Hotel 1	✓	✓	✓	✓	✓
Hotel 2	—	—	—	—	—

#### A. The Sales Budget

According to the Western cost accounting textbooks (e.g. Hartley, 1983, Matz and Usry, 1976, Moriarity and Allen, 1984, and Killough and Leninger, 1984), the estimation of the sales budget is the backbone and starting point in the budgeting process. Accordingly, advanced sales forecast techniques are used to arrive to sound sales budgets. However, this is hardly the case in Sudan, because of the existence of the sellers' market. This is a situation where the supply of the consumer goods is well below the demand. More details on the reasons for the existence of the sellers' market are to be discussed in Chapter 8.

Our observations in the three manufacturing and import substitution companies tend to confirm the existence of the sellers' market.

In the first textile company, which faced serious liquidity problems, wholesalers pay the company in advance to help finance the working capital so that the company could continue producing the different textiles. In the first food company, the production once failed to meet the orders of the wholesalers. The wholesalers then complained to the financial controller and asked for their money back. The financial controller then contacted the company's general manager who in turn ordered the production manager to stop producing the other types of sweets and produce the outstanding orders. Moreover, in the second food company and the other public companies we have seen the wholesalers queuing and waiting for their quotas. Therefore, in all the public and private manufacturing companies, there are no marketing departments. Instead, there is a small sales department with few personnel deeply involved in invoicing bills and handling other sales activities.

The three import substitution companies, therefore, estimate their sales budget on the basis of the production capacity as table 6.4 shows. The sales budget is no more than the production schedules times provisional prices, and it does not involve advanced sales forecast techniques and the production capacity is the sole limit. When asked about the reasons for this, the following responses are typical of many:

"Simply because we have no distribution problem".

"The market absorbs all the production".

"The production quantities depend on the available machines, and our production is always less than what the market requires".

The second textile company is an export-oriented one, and it produces yarn counts for export to the European weaving companies. The company faces severe competition on price. Therefore, its sales

Table 6.4: Bases Of Estimation & Classification Of The Sales Budget In The Private Enterprises

Bases of Estimation & Classification Companies	Basis of Estimation					Classification Methods	
	Past Trends Adjusted	Correlation of Sales with Economic Indicators	Market Survey	Past Experience	Production Capacity	By Products	By Methods Of Selling
Textile Industry							
Company 1	—	—	—	—	✓	✓	—
Company 2	—	—	✓	—	—	✓	—
Food Industry							
Company 1	—	—	—	—	✓	✓	—
Company 2	—	—	✓	—	✓	✓	—
Hotel Industry							
Hotel 1	—	—	—	—	✓	✓	—
Hotel 2	—	—	—	—	—	—	—

are based on market surveys conducted by its marketing manager (a Ph.D holder in marketing). The four manufacturing companies classify their sales budgets by products, as shown on table 6.4. Finally, the frequency of preparing and revising the sales budget varies from one company to another. In the textile industry, the two companies prepare their sales budgets quarterly and revise them monthly. In the food industry, on the other hand, both companies prepare their budgets annually, the first company does not revise its sales budget at all, whereas the second food company revises its sales budget quarterly. For the frequency of preparing and revising the sales budget, see table 6.5.

In the hotel industry, on the other hand, the first hotel has a sales budget for food and beverages. Due to the nature of the hotel business, the sales budget is based on the expected production capacity, that is, the occupancy rate or the expected number of residents for a year. The financial controller of the hotel made it clear that they are facing competition from the other foreign-owned and/or managed hotels which provide the same quality of services. The hotel classifies its sales budget by products, that is, sales of food stuffs and soft drinks. The sales budget is prepared annually and is revised monthly. The second hotel, which does not prepare short-term budgets has no sales budget.

#### B. The Production Budget

Due to the existence of the sellers' market as we have already argued, the production budget is the most important element in the budgeting process in both the public and the private sectors. Table 6.6 shows the basis of estimating the production budget. Accordingly, in the manufacturing sector, the first textile company and the other

Table 6.5: Frequency Of Preparing And Revising The Sales Budget In The Private Enterprises

Frequency of Preparing and Revising  Companies	Frequency of Preparing The Sales Budget					Frequency of Revising The Sales Budget			
	Weekly	Monthly	Quarterly	Annually		Weekly	Monthly	Quarterly	Annually
Textile Industry									
Company 1	—	—	✓	—		—	✓	—	—
Company 2	—	—	✓	—		—	✓	—	—
Food Industry									
Company 1	—	—	—	✓		—	—	—	—
Company 2	—	—	—	✓		—	—	✓	—
Hotel Industry									
Hotel 1	—	—	—	✓		—	✓	—	—
Hotel 2	—	—	—	—		—	—	—	—



two food companies (all import substitution), use the expected production capacity as a basis to estimate their production budgets. In addition, the second food company uses market and economic studies to estimate its production schedules for some of its products which face marketing problems due to low quality. However, it should be emphasized at this stage that the determination of the expected production capacity is not an easy ride at all. Rigorous consideration for the problems that may disrupt the production process has to be done before estimating the production figure. These problems will be discussed in the next chapter. The second textile company, being an export-oriented one, prepares its production plan on the bases of the sales budget, which in turn is based on marketing and economic studies.

In the hotel industry, on the other hand, the first hotel uses two bases for estimating the production budget which is expressed in terms of occupancy rate per month and year and the expected number of occupants. These estimates are based on the past figures being adjusted and the marketing and economic studies conducted by the marketing office. As the occupants of the hotel are mainly foreign businessmen, the hotel has to compete with the other foreign-owned and/or managed hotels, and has to take into consideration the economic and political factors that may affect the volume of business either positively or negatively.

Preparation of the production budget in the private sector also involves estimating the main cost items, especially the raw materials. Table 6.7 shows that the two textile companies and the second food company prepare their estimates for materials and labour in terms of both costs and quantities, and the factory overhead for the budgeted production volume. In the hotel sector, the first hotel prepares

Table 6.6: Bases Of Estimating The Production Budget In The Private Enterprises

Bases of Esti- mation Companies	Technical Studies By Engineers	Past Figures Adjusted	Past Experience	Market & Economic Studies	Production Capacity
Textile Ind.					
Company 1	—	—	—	—	✓
Company 2	—	—	—	✓	—
Food Ind.					
Company 1	—	—	—	—	✓
Company 2	—	—	—	✓	✓
Hotel Ind.					
Hotel 1	—	✓	—	✓	—
Hotel 2	—	—	—	—	—

Table 6.7: The Production Budget, : Cost Items Estimated In The Private Enterprises

Budgeted Cost Items Companies	Direct Material		Direct Labour		Factory Overheads
	Cost	Quantity	Cost	Quantity	
Textile Ind.					
Company 1	✓	✓	✓	✓	✓
Company 2	✓	✓	✓	✓	✓
Food Ind.					
Company 1	✓	✓	—	—	—
Company 2	✓	✓	✓	✓	✓
Hotel Ind.					
Hotel 1	✓	✓	✓	✓	✓
Hotel 2	—	—	—	—	—

budget estimates for materials and labour, both in terms of cost and quantity, and the overhead costs.

Finally, another aspect of production budgeting is the frequency with which it is prepared and revised. In the textile industry, the two companies prepare their production budgets annually and revise them monthly. In the food industry, both companies prepare their production budgets annually, the second company revises its production budget quarterly, whereas the first company does not revise its production budget at all. In the hotel industry, the first hotel prepares its production budget annually and revises it monthly.

#### C. The Profit Budget

Table 6.8 shows the private enterprises that prepare profit budgets, that is, Projected Profit and Loss Accounts and Balance Sheets. According to this table, the two textile companies and the second food company prepare partial profit budgets, that is, only the budgeted Profit and Loss Account which are no more than the budget summary for the company as a whole. In the private hotel industry, only the first hotel is reported to have an established profit budget, that is, a Profit and Loss Account and Balance Sheet being prepared well in advance. All the enterprises that prepare profit budgets, prepare them for the company as a whole rather than for separate departments or divisions. This is basically due to the simple structure of these enterprises, according to which the whole company is considered as a profit centre rather than a series of profit centres. In terms of frequency, the two textile companies prepare their profit budgets annually and revise them monthly, whereas the second food company prepares its profit budget annually and reviews it quarterly. The first hotel, on the other hand, prepares its profit budget annually and revises it

Table 6.8: Private Enterprises Preparing Profit Budgets and Cost-Volume-Profit Analysis

Industries/Companies	Profit Budgets (Projected B/S and P/L A/C)			Cost-Volume-Profit Analysis
	P/L	A/C	B/S	
Textile Industry				
Company 1	✓		—	—
Company 2	✓		—	—
Food Industry				
Company 1	—		—	—
Company 2	✓		—	—
Hotel Industry				
Hotel 1	✓		✓	—
Hotel 2	—		—	—

monthly. The analysis of the cost-volume-profit relationships is another important cost accounting technique which helps appropriate profit planning. Our investigations showed that this technique has never been used in the private sector enterprises. This could be attributed to the fact that the participating enterprises showed no interest at all in separating their costs in terms of fixed and variable elements, as will be discussed in the next section of this chapter. Additionally, it could be attributed to the way prices are fixed by the government as will be discussed in more detail in Chapter 8.

#### Summary of The Budgeting System in The Private Enterprises

Following the detailed discussion on the budgeting practices in the private sector enterprises, one could conclude that:

- 1 - While the long-term budgeting is rarely used, the short-term budgeting is widely adopted by most of the private enterprises.
- 2 - The short-term budget usually consists of the production, sales and profit budgets, and

- 3 - Being regularly revised, the short-term budget is effectively used for planning and control and performance evaluation purposes as will be discussed in the next chapter.

### 6.3 Flexible Budgets

The flexible budget is a useful technique for revising and refining the master fixed budget, taking into consideration the changes in the volume of production. Thus flexible budgets are based on the knowledge of how costs behave with the production volume, so that costs could be related and justified on the basis of the actual production volume.

In the public enterprises, not one company or hotel was reported to break down its costs into variable and fixed elements. Instead, these enterprises classify their expenditure in terms of the three conventional chapters as we have already discussed. One financial controller even made it clear that they do not need to classify their costs into fixed and variable elements. He argued that:

"We do not need this classification because we are using the full costing system rather than the marginal costing".

Therefore, it is not surprising to find that no public enterprise prepared a flexible budget. When asked about the reasons for not preparing flexible budgets, financial controllers made it clear that they prefer to keep a close eye on the overall static budget, as it is their responsibility to make sure that these static budgets are not exceeded irrespective of the amounts produced. The following responses by two financial controllers are typical of many.

"We are using the system of fixed budgets, which is approved by the Ministry of Finance".

"We do not normally exceed our budgets, because the budgeted production could not be achieved due to the electricity problems".

The last statement suggests that managers of the public enterprises

are not interested to relate their actual expenditure to the actual production and just used the electricity problems to justify inefficiency, because the budgeted expenditures are usually based on a production target which has never been achieved.

In the private enterprises, also not one company or hotel was reported to segregate their costs into fixed and variable elements. Taken together with the limited application of standard costing systems, it is not surprising that all the private enterprises do not prepare flexible budgets. Therefore, one could conclude that Sudanese enterprises in general, and the manufacturing concerns in particular, do not use these cost accounting control technique despite the fact that these manufacturing enterprises might need to relate the actual costs incurred to the actual production figures for a specified period. This is because of the frequent electricity cuts and hard currency problems which disrupt production several days a month, and definitely weeks a year, as will be discussed in the next chapter.

#### 6.4 Capital Budgeting Techniques:

Capital budgeting techniques are decision models designed to help managers select economically feasible projects.

All the public enterprises, without exception, are reported to have no separate capital expenditure budgets. The obvious reason is that all the investment decisions are made and monitored by the Department of Planning, of the Ministry of Finance and Economic Planning, as will be discussed in detail in Chapters 7 and 8. Therefore, no public enterprise was reported to have an established capital budgeting technique to evaluate capital projects.

In the private enterprises, on the other hand, four enterprises are reported to have capital expenditure budgets. Two of these

enterprises, that is, the second textile company and the first hotel, used the payback period as a capital budgeting technique. The other two enterprises, the first textile company and the second food company, do not have an established capital budgeting technique as they refer their feasibility studies to outside consultants as we will discuss in the next chapter.

#### 6.5 Cost Accounting Systems:

The cost accounting system is a major management tool that could be used for a variety of purposes, the most important of which is establishing the selling prices (Matz and Usry, 1976).

In the public enterprises, as table 6.9 shows, the first textile company is the sole enterprise that has got an established cost accounting system. The system has been introduced very recently in the early 1984 to replace a previous cost accounting system which was designed by some experts from the Arab League. The new cost accounting system was designed and introduced by the Efficiency Improvement Unit for the Public Industrial Sector Corporations, which is one of the departments of the Industrial Research and Consultancy Institute of the Ministry of Industry. The cost accounting system is designed and introduced according to the provisions of the Government Financial Statutes, issued by the Industrial Production Corporation, which lay down the broad lines for establishing a cost accounting system. These findings, together with those of Rikabi's (1984) study, suggest that the cost accounting system is almost lacking in the public enterprises. However, it is surprising to find that the other three manufacturing companies have no cost accounting systems despite the fact that the Government Financial Statutes stipulated that all the production units must have cost accounting systems. (See Appendix B). One reason for the lack of cost accounting systems in these three companies is the fact that the

initiative of introducing such modern management information systems rests with the Industrial Research and Consultancy Institute of the Ministry of Industry, as will be discussed in more detail in Chapter 8. Another reason suggested by the financial controllers of these companies is that they do not need to have cost accounting systems at least to establish the selling prices which are fixed by the branch corporations, that is, the Public Corporation for Spinning and Weaving and the Food Industries Corporation, as will be discussed in detail in Chapter 7.

In the private enterprises, on the other hand, as table 6.9 shows, three manufacturing companies (the two textile companies and the second food company) and the Khartoum Hilton Hotel have established cost accounting systems. Apparently, therefore, more of the private enterprises have got cost accounting systems if compared to their counterparts in the public sector. One reason for this is the need of these enterprises to compile the cost information to fix prices according to the requirements of the Industrial Costs and Pricing Administration of the Ministry of Industry, as will be discussed in Chapter 8.

#### 6.6 The Standard Costing Systems:

The standard costing systems are useful cost accounting techniques which could be effectively used for planning and controlling activities, and as indispensable tools for establishing the static operating budgets.

In the public manufacturing companies there is almost no standard costing systems as most of these companies do not have even basic cost accumulation systems. Therefore, as table 6.9 shows, the standard costs are only established in a tentative manner for the direct materials both in terms of cost and quantity. The establishment of these standard costs, as table 6.10 shows, is the sole responsibility of the



production departments, as it is perceived as a pure technical issue. Therefore, the standard costs for the direct materials are no more than the production formula which the production managers learned from their academic education, and no rigorous standards are in use. One production manager argued in this respect that:

"The manufacturing of sweets is a technical work and from our academic study it is possible to determine the production formula and the ingredients for each product which are fixed".

Table 6.9: The Cost Accounting Systems and Standard Costing Systems in the Public and Private Enterprises

Industries/ Companies	Cost Accg. Systems	Cost Items for which standards are set				
		Direct Materials		Direct Labour		Over- heads
		Cost	Quantity	Cost	Quantity	
Public Enterprises						
Textile Industry						
Company 1	✓	✓	✓	—	—	—
Company 2	—	✓	✓	—	—	—
Food Industry						
Company 1	—	✓	✓	—	—	—
Company 2	—	✓	✓	—	—	—
Hotel Industry						
Hotel 1	—	✓	✓	—	—	—
Hotel 2	—	✓	✓	—	—	—
Private Enterprises						
Textile Industry						
Company 1	✓	✓	✓	—	—	—
Company 2	✓	✓	✓	—	—	—
Food Industry						
Company 1	—	✓	✓	—	—	—
Company 2	✓	✓	✓	—	—	—
Hotel Industry						
Hotel 1	✓	✓	✓	—	—	—
Hotel 2	—	✓	✓	—	—	—

Table 6.10: Departments participating in Setting Standards in The Public and Private Enterprises

Depts. participating in setting standards Public/Private Enterprises	Industrial Engineers	Accg. Dept.	Standards Dept.	Responsible Manager	Production Manager	Personnel Dept.	Purchasing Dept.
Public Sector							
Textile Ind.							
Company 1	—	—	—	—	✓	—	—
Company 2	—	—	—	—	✓	—	—
Food Ind.							
Company 1	—	—	—	—	✓	—	—
Company 2	—	—	—	—	✓	—	—
Hotel Ind.							
Hotel 1	(Standards are set by the Technical Audit and						
Hotel 2	Inspection Unit, of the Hotels and Tourism Corporation)						
Private Sector							
Textile Ind.							
Company 1	—	—	—	—	✓	—	—
Company 2	—	—	—	—	✓	—	—
Food Ind.							
Company 1	—	—	—	—	✓	—	—
Company 2	—	—	—	—	✓	—	—
Hotel Ind.							
Hotel 1	(Standards are set by the HO in NY)						
Hotel 2	—	—	—	✓	—	—	—

Therefore, as table 6.11 shows, these standard costs are solely used for the development of the static budgets of these enterprises and to

enable these companies to defend the quality standards of their products in case of investigation by the Quality Control Administration of the Ministry of Industry.

One of the production managers, referring to this point, argued that:

"The government binds us with certain quality and fixed prices".

This is because it is the responsibility of the Quality Control Administration to ensure that maximum quality standards are maintained by the domestic manufacturing industries. This is done by surprising quality checks, using the Standards Manuals of the Industrial Control Board of the Ministry of Industry. Consequently, due to the low use of these standard costs and the fact that they are solely developed by the production department, these standard costs could be termed as "theoretical standards" which are useless for management control purposes because "employees would probably react negatively to impossible standards being imposed upon them". (Killough and Leninger, 1984), and as long as they do not participate in setting these standards (Simon et al, 1954). In the public hotels, on the other hand, the standard costs are used in a limited and tentative sense. The standard costs are established for the different recipes in terms of both costs and quantities of food stuffs involved in these recipes. These standards are established by the Technical Audit and Inspection Unit, of the Hotels and Tourism Corporation. Examples of these standards are:

- 1 kilo of meat makes up to 4 dishes of beef curry, and
- 2 eggs will make a dish of omelete.

At the hotels level, these standards are used for the estimation of the hotels static budget, and for decision-making purposes, that is, fixing the prices of the different dishes. At the corporation level, those standards are used for control and efficiency audit purposes, as

Table 6.11: Purposes of Standard Costs in The Public and Private Enterprises:

Purposes of Standard Costs Public/ Private Enterprises	Control Purposes (Variance analysis)	Decision- making (Price- setting)	Measure of Perform- ance	Development of Static Budgets
Public Enterprises				
Textile Industry				
Company 1	—	—	—	✓
Company 2	—	—	—	✓
Food Industry				
Company 1	—	—	—	✓
Company 2	—	—	—	✓
Hotel Industry				
Hotel 1	✓	✓	—	✓
Hotel 2	✓	✓	—	✓
Private Enterprises				
Textile Industry				
Company 1	—	—	—	✓
Company 2	—	—	—	✓
Food Industry				
Company 1	—	—	—	✓
Company 2	—	—	—	✓
Hotel Industry				
Hotel 1	✓	✓	✓	✓
Hotel 2	✓	✓	—	—

will be discussed in more detail later in this chapter.

Conclusions reached on the range of cost items for which standards are established, the departments involved in setting these standards

and the purposes for which these standards are used in the public manufacturing companies equally apply to the private manufacturing companies and therefore no repetition is made. In the two private hotels, the setting of the standard costs is again limited to the materials directly used in making certain recipes both in terms of costs and materials needed to make a certain dish. In the Khartoum Hilton, these standards are established by the Head Office of the Hilton International Company in New York, which are incorporated in the Standards of Recipes Manual. These standards are used in the hotel for all the purposes. In the second family-owned and managed hotel, these standards are typical of the ones prevailing in the public hotels, as its manager used to work with the Hotels and Tourism Corporation. In this hotel the standard costs are used for control and performance evaluation purposes and for price-setting purposes. In conclusion, one could argue that the establishment of standard costs in both the public and private manufacturing companies is almost lacking. The existence of the sellers' market and the pricing practices in Sudan are possible reasons for this. For further details, see Chapter 8.

#### 6.7 The Inventory Planning and Control Techniques:

According to the main cost accounting textbooks, inventory planning and control involves two types of control. First, the accounting control which is concerned with keeping adequate stock records for the main inventory items. Second, the operating control which is concerned with planning the optimum inventory levels for the major inventory items. This study touches on the accounting control of inventories and emphasizes the operating control of the main inventory items, which is the prime concern of management (Horngren, 1980).

The purchases of the different inventory items in the two public manufacturing industries is made according to the provisions of the Purchases Statute issued by the Public Industrial Production Corporation (IPC) as will be discussed in Chapter 8. Briefly, this statute shows the procurement procedures through open tenders, limited tenders, and the direct purchases. It also shows the ratification authorities which are shared among the IPC, the Branch Corporations and the individual production units. However, in practice the Branch Corporations maintain full control over the purchases of inventory of their production units. The reasons are two-fold. First, due to the geographical dispersion of most of the production units, they are far away from Khartoum where all the procedures with the government bodies and the financial institutions are to be conducted. Second, Branch Corporations are entrusted to maintain the technical and financial control on the production units as far as the purchases of raw materials are concerned.

Accordingly, our investigations in the two public manufacturing industries showed that the major cost accounting technique for the inventory planning and control, that is, the Economic Ordering Quantity (EOQ), is not in use either at the production unit level (the individual factories) or at the Branch Corporation level (the Textile and Food Industries Corporations). Thus, in the textile industry the major inventory item, cotton, is procured annually according to the marketing policy formulated by the Public Corporation for Cotton. Normally, at the beginning of each financial year, the two textile companies estimate their own requirements from cotton bales for the whole financial year according to their expected production capacity. The Public Company for Spinning and Weaving then contacts the Public Corporation for Cotton. The approval of the quantities of cotton to be allocated to the local textile mills, both public and private, depends on the quantities

of cotton to be exported. Once the Public Corporation for Cotton decides on the quotas to be distributed to the local mills, it is the responsibility of these companies to clear up all their quotas immediately from the ginning mills, otherwise storage fines are to be paid by companies.

In the other two public food factories, the inventory purchases, being mostly from abroad, are procured by the Food Industries Corporation according to the procurement policy determined by the Importation Administration of the Ministry of Industry. Accordingly, all the public and the private food companies, and definitely other manufacturing industries, have to apply for licences to import raw materials once each four months. The Importation Administration then investigates the technical capacities of the applicant factories to make sure that no one factory overestimates the proposed amounts of raw materials and to make sure that the amounts imported during the last four months were actually used up in the production process. Once the proposed quotas are approved by the Importation Administration, they are transferred to the National Committee for the Utilization of the Free Market Resources, which distributes the available hard currency according to the priorities determined by the Ministry of Finance and Bank of Sudan. Due to the acute shortage of hard currency in the country, the quantities of raw materials proposed by these companies are usually reduced by the Committee and sometimes postponed. One official in the Importation Administration said:

"We give import licences but they (the National Committee) block them because there is no hard currency. We received many complaints from the factories and some of them have already closed down. If this situation continues, there might come a day when all the factories are to close down".

Therefore, the Food Industries Corporation, as well as the other private food companies, usually include excessive safety stocks to

avoid these problems connected with the procurement of the raw materials and the everrising exchange rate of the US dollar against the Sudanese pound. In one of the reports of the Auditor General, for instance, it was recommended that the first food company should reduce its ending stock levels, as huge amounts of raw materials were stored at the end of the financial year at a time when the company faced chronic liquidity problems to the extent that it was unable to pay the salaries and wages of its employees. In the second food company the financial controller said that at one time they needed only three tons of glucose. However, they ordered seven tons and they felt happy as the prices of glucose increased dramatically due to the sharp devaluation of the Sudanese pound.

In the two public hotels, on the other hand, the inventory items could be classified under two categories. The first type is the perishable materials such as ice, eggs, beef,...etc. These materials are procured on daily basis through permanent contractors, the amounts to be determined by the numbers of residents. The second type is the relatively long-lived food stuffs such as sardines, broad beans and milk powder. Accordingly, the problem of maintaining optimum inventory levels arises with the second category of inventories. Like the public manufacturing companies, the use of the EOQ for inventory planning and control is lacking in the two hotels. Instead, the non-perishable food stuffs are procured occasionally without a predetermined criterion in the first hotel. The financial controller attributed this to the fact that the cost of the other nonperishable food stuffs is negligible, and that the Hotels and Tourism Corporation, which manages the public hotels and from which the public hotels get part of their requirements, may impose some quotas to be purchased by these hotels irrespective of their needs. He cited an example whereby the Corporation forced these



hotels to buy huge quantities of jam. The result of this is that most of the jam went bad before being used and has to be destroyed. In the second hotel, however, the problem of maintaining appropriate inventory levels does not exist, as the hotel faces serious air conditioning and storage problems. The hotel obtains inventory requirements on daily basis from the Corporation. The financial controller of the hotel argued in this respect that:

"The storage system is very bad because there are mice in the stores and there is no good air conditioning system in the hotel".

Finally, it is worth mentioning that while all the public enterprises ignore the operating control aspect of inventory planning, all of them emphasize accounting control over inventories according to the provisions of the Government Financial Statutes and Laws. In the manufacturing companies, accounting control over inventories is maintained according to the provisions of the Government Financial Statutes issued by the Industrial Production Corporation (IPC). These statutes explain in detail the procedures and documents to be used in connection with the receipts and issues of the different stock items. The responsibility for carrying out these instructions rests with the stores sections in these enterprises, which are normally part of the Financial Administrations. For further details on this, see Appendix B. In the two hotels, on the other hand, accounting control over the different inventory items is maintained in conformity with the Stores Statute, which was issued to regulate the storage system in the Hotels and Tourism Corporation and its operating hotels. Chapter four of these statutes stipulate that:

"Every storekeeper has to keep stores records showing the quantities stored and has to keep ledger cards showing quantities and values. These records should be reviewed monthly or when necessary to confirm the recording and receipts of operations. When discrepancies appear, they should be investigated and responsibility be assigned".

In the private manufacturing companies, also no company was reported to have used the EOQ technique for inventory planning and control purposes. In the textile companies, cotton is procured annually according to the policy determined by the Public Corporation for Cotton in the same way as discussed in the public textile companies. The private food companies procure most of their inventory requirements from abroad in the same way as discussed in the public food companies. It is beyond doubt, that the private food companies, like their counterparts in the public sector, hold excessive safety stocks to avoid lots of problems arising with the procurement of inventory from abroad as we will discuss in the next chapter. The following statements by the financial controllers of the two companies are suggestive.

"We estimate our quantities of raw materials according to our available storage capacity so as to avoid the rapidly fluctuating exchange rate of the dollar".

"We determine our requirements from the raw materials according to the production plan plus the requirements for two months as a reserve".

The two private hotels, on the other hand, classify their inventory requirements in the same way as in the public hotels. Like the public hotels, no private hotel is reported to have used the EOQ decision model for inventory planning and control purposes. The Khartoum Hilton, which makes its meals according to the Standards of Recipes applicable to the Hilton Hotels world-wide, obtains most of its inventory requirements from abroad. The hotel estimates its inventory requirements on monthly basis according to the actual consumption in the last month and the expected number of occupants for the next month. These quantities are then subject to the approval of the Ministry of Commerce, Supply and Cooperation. The second hotel, which obtains its inventory purchases from the local market, obtains its inventory requirements on monthly basis according to the actual consumption for the last month in addition

to excessive stocks procured to avoid future price increases. The financial controller of the hotel made it clear that:

"I usually do my best to have surplus in my requirements to the extent that if there is scarcity in these materials, or there is a transport problem, these materials will be available".

Finally, as in the case of the public enterprises, all the private sector enterprises maintain proper accounting control over their different inventory items by keeping adequate stock records and ledgers in their Stores Department and by using store cards to monitor the movement (receipts and issues) of the various inventory items.

In conclusion to the discussion of the application of the EOQ model, it is evident that this technique is not in use in either the public or the private enterprises. Instead, the Sudanese enterprises are inclined to maintain as much excessive safety stocks as possible. While the EOQ model could still be used over and above a large safety stock, the uncertainty of all the parameters of the model has discouraged these enterprises from using this decision model for inventory control purposes. These include uncertainty of the actual quantities of materials to be ordered and obtained which depend largely on the hard currency (quota) allocated by the government, the ever increasing acquisition costs of raw materials due to the increase of the exchange rate of the US \$, and the uncertainty of the lead time required for obtaining raw materials which arises because of the poor infrastructure of the country (transport problems). Locking up capital in excessive stocks, therefore, suggests that developing countries may be less competitive and more inefficient at production compared to the developed countries (see Chapter 8, Section 8.6). Among other factors, this could be attributed to the socio-economic environment of the developing countries which is characterized by hard currency problems and poor infrastructure (problems of electricity, transport and communications)

within which import-substitution industries operate.

#### 6.8 Performance Measurement Techniques

The performance measurement techniques in the public enterprises are shown on table 6.12. Accordingly, all the public manufacturing companies measure their performance in terms of residual income. Though this might not be exactly the same residual income as suggested by the cost accounting textbooks, it is a close approximation to it. The residual income as measured in these companies is reached by deducting 5% from the company's net income as an interest on the capital invested in the public enterprises and payable to the Ministry of Finance as the owner. This 5% interest on capital invested has to be paid by all the public enterprises and corporations by virtue of the 1978 Government Financial Regulations issued by the Ministry of Finance. The term 'capital invested' as defined by these regulations, is equivalent to the owners' equity in the basic financial accounting formula and is calculated by deducting total liabilities from the total assets of the company. Though the 5% is accounted for in the financial statements, but practically speaking, all the public manufacturing companies do not pay this interest to the Ministry of Finance. This is basically due to the huge losses sustained by these enterprises. For instance, the Public Corporation for Textiles, which manages the publicly-owned textile companies, incurred losses more than 53 million Sudanese pounds since established eight years ago. These huge losses are partly attributed to the underpricing practices in these companies, as will be discussed in Chapter 7. In the public hotels, which generated budget surpluses (profits), the 5% interest is paid by the Hotels and Tourism Corporation. Therefore, the performance of the public hotels is measured in terms of absolute amounts of profits.

Table 6.12 also shows the performance measurement techniques used in the private enterprises. Accordingly, the two textile companies measure their performance in terms of absolute amounts of profits.

Table 6.12: Performance Measurement Techniques in Public and Private Enterprises

Public/Private Enterprises	Performance Measurement Techniques			
	Return on Investment (ROI)	Residual Income (RI)	Absolute amounts of Profits	Others
Public Sector				
Textile Industry				
Company 1	—	✓	—	—
Company 2	—	✓	—	—
Food Industry				
Company 1	—	✓	—	—
Company 2	—	✓	—	—
Hotel Industry				
Hotel 1	—	—	✓	—
Hotel 2	—	—	✓	—
Private Sector				
Textile Industry				
Company 1	—	—	✓	—
Company 2	—	—	✓	—
Food Industry				
Company 1	✓	—	—	—
Company 2	✓	—	—	—
Hotel Industry				
Hotel 1	—	—	—	(GROSS OPERATING RATIO) ✓
Hotel 2	—	—	✓	—

Both companies incurred huge losses in the past few years, which could explain why these companies used this less sophisticated performance measurement technique. The first textile company, which is the largest company in the sample firms, is severely affected by frequent electricity cuts, and therefore only utilized a small proportion of its available capacity. The second textile company, which is export-oriented, faces severe competition on price and therefore sells its products at prices much lower than the production cost. The other two food companies, which are relatively profitable, use the return on investment (ROI) to measure their performance. In the private hotel industry, the first hotel applies a performance measure which is commonly used by the Hilton Hotels world-wide. The performance measurement technique used in the hotel is known as the Gross Operating Profit (GOP) ratio, which is merely the percentage of the gross operating expense to the gross operating profits. The second hotel uses the absolute amounts of profits to measure its performance. Both hotels are said to make high profits, as they are involved in a service industry which is less exposed to the problems of the manufacturing industries, despite the competitive structure of the hotel industry.

#### 6.9 The Audit Function:

The audit function is an important element of the internal control systems in the modern business organizations. The scope of the audit function, therefore, expands beyond the conventional financial and compliance auditing to include the modern concept of efficiency audit.

White (1976), referring to this point, makes it clear that:

"We are no longer satisfied with fund and object of expenditure budgeting, accounting, and auditing. It is doubtful if such an approach ever did serve any real or overall meaningful purpose. The emphasis now where it belongs: on programs and whether such programs are carried out effectively, economically, and efficiently".

Bowsher (1979), emphasizing the importance of the efficiency audit even in the government-owned public utilities, maintains that:

"Government auditing now is also concerned with whether governmental organizations are achieving the purposes for which programs are authorized and funds are made available, and doing so economically and efficiently, and are complying with the applicable laws and regulations".

Some writers even pinpoint the urgent need of the public sector enterprises for the efficiency audit in comparison to their counterparts in the private sector. Jaggi (1970), for instance, referring to this point, states that:

"The audit of the companies in the public sector thus takes on different dimensions, and the statutory audit required for the companies in the private sector is no longer adequate. The statutory audit, which is only a propriety audit, ensures honesty and integrity in financial reporting and confirms that there has been no infraction of statutory provisions, but it is concerned with the efficiency of management. The efficiency audit required for the companies in the public sector should highlight any mismanagement aspect which has resulted in an inefficient, incompetitive and burdensome company".

In the public enterprises, the audit function is to be investigated in three levels, that is, at the organization's level, the audit function as conducted by the Branch Corporations, and the audit function carried out by the Auditor General. At the organization's level, out of the six public enterprises investigated in the public sector, only the first textile company is reported to have an established internal auditing department, as table 6.13 shows. The chief internal auditor in this company sends his reports directly to the Managing Director of the company. In the chief internal auditor's words, the objectives of the department are:

"The objectives of internal auditing here is to perform control on every piastre (penny) paid or received by this company".

The internal audit department is primarily concerned with the financial and compliance audits, which include safeguarding the company's assets, checking the accuracy and reliability of the accounting data and records, and ensuring adherence to the managerial policies and

procedures which are mainly the Purchases and Financial Statutes issued by the Public Industrial Production Corporation (IPC) and strictly adhered to by the public food and textile companies. Therefore, it is quite evident that the basic objective of the internal audit department in this company is to ensure rigid adherence to these financial statutes. In particular, the internal audit department is mainly concerned to ensure that purchases of raw materials and spare parts by the company are made according to the provisions of the Purchases Statute and that the provisions of the Financial Statute as regards the procedures to be followed with respect to the sales of finished goods, the monitoring of stores and treasury, are carried out to the letter. Therefore, the promotion of the operational efficiency in this company, or conducting efficiency audit is never practised in the company. The financial controllers of the other manufacturing companies even showed no interest in having their own separate internal audit departments as long as the auditing function in their companies is to be carried out by the Branch Corporation or the Auditor General. The following statements are suggestive.

"The internal auditing is performed by the financial division, because the internal control system could achieve the objectives of the internal audit. In the past, the Corporation (Textile Corporation) used to do it for us. Internal auditing is now done by the Auditor General".

"There is no internal audit department. The Corporation (Food Industries Corporation) audits our accounts. Though we have no internal audit department, the Auditor General audits our accounts".

Therefore, one reason for not having separate internal audit departments in most of the public enterprises is the fact that internal auditing in these enterprises is the responsibility of the Branch Corporations. Thus, in the manufacturing companies the internal auditing in these companies is the joint responsibility of the Internal Audit Units established at the headquarters of the Industrial Production



Corporation (IPC) and the Branch Corporations, that is, the Public Corporation for Spinning and Weaving and the Food Industries Corporation. Though the Internal Audit Unit in the IPC ceased to provide the audit services since the IPC was liquidated in 1980, the other units in the Branch Corporations continued to provide their audit services as stipulated in the Government Financial Statutes, as shown on Appendix B. These audit services are less regular due to the restructuring measures that took place in the public industrial sector. These audit services include safeguarding the company's assets, checking the reliability of the accounting data and records, and ensuring adherence to the company's policies and procedures. Furthermore, as stipulated in the objectives of these units of the Branch Corporations, they have to ensure strict adherence to the Purchases and Financial Statutes issued by the Industrial Production Corporation (IPC) in the same manner as explained in connection with the first textile company. These units also provide other services such as designing the financial accounting systems in the production units including the different books of accounts to be used and the recording policy, that is, single or double entry book-keeping. According to the chief internal auditor in one of these units, efficiency audit has never been conducted in these enterprises. He stated that:

"The idea is there with some individuals, but has never been practised".

These Internal Audit Units submit reports directly to the General Managers of the Branch Corporations, and a copy of the same report is sent to the general managers of the concerned production units.

In the public hotel industry, by virtue of the 1977 Financial Statute of the Hotels and Tourism Corporation, the internal auditing of these hotels is the joint responsibility of two internal audit units,

established in the Corporation's headquarters. These two internal audit units which conduct two different audits, are the Audit and Financial Inspection Unit and the Technical Inspection and Audit Unit. The Audit and Financial Inspection Unit, as its name implies, is mainly concerned with the financial and compliance audits as stipulated in the 1977 Financial Statute of the Hotels and Tourism Corporation. For further details see Chapter 8, Section 8.1. These audit services include safeguarding the hotels assets, checking the reliability and accuracy of the accounting records and reports of the company, and ensuring adherence to the managerial policies and procedures. The audit procedures conducted by the Audit and Financial Inspection Unit are heavily geared towards safeguarding the application of the Corporation's Financial Regulations and ensure that all the daily revenue and expenditure transactions are handled as stipulated in the Financial Statute of the Corporation. The other internal audit unit, the Technical Inspection and Audit Unit, performs a limited efficiency audit. The audit services provided by the Technical Inspection and Audit Unit are based on the consumption of provision report which is submitted monthly by the financial controllers of these hotels to the Unit, as will be discussed in more detail in Chapter 7. Upon the receipt of this report, the Unit conducts a detailed comparison between the amounts of food stuffs actually used to produce different food dishes shown on the report and the actual number of dishes made during the month. This comparison is made on the basis of the tentative materials standards required to produce a certain dish, as we have already discussed. Moreover, the unit compares the monthly net income made by the cafeterias and restaurants of these hotels, with an internationally accepted standard of net profits to be earned by cafeterias and restaurants, which is 45%. Therefore, if the ratio of

the net income from food sales to the expenditure on food stuffs is less than 45%, it means that the cafeterias and the restaurants of these hotels are making losses. The two internal audit units send their reports to the General Manager of the Hotels and Tourism Corporation and the general managers of the hotels.

Finally, all the public enterprises are externally audited by the Chamber of the Auditor General. The 1970 Act of the Chamber of the Auditor General states that the Chamber shall be generally responsible for the auditing of all the accounts of the central and local government including the accounts of the council of ministers, all accounts of public corporations and companies in whose capital the state participates or which the state assists or supervises, and any account or financial work assigned to the Chamber by the state head or the council of ministers or any president of bodies subject to audit by virtue of this Act. The Act then defines the objectives of the audit services as to conduct the audit accurately to ensure that the financial expenditure and the accounting records were performed according to the Accounting and Financial Laws and Regulations in use and within the boundaries of the budget. Additionally, after auditing any account whether it is final or not, the Chamber should prepare a report including the results of the audit and send it to the body which was audited, accompanied by a certificate confirming that the accounts have been investigated according to the sound accounting principles after obtaining all the particulars and information necessary for the audit process and pointing out any mistakes, discrepancies, defalcations, or negligence in implementing the Financial and Accounting Laws. When asked about the objectives of their audit, the assistant Auditor General for the Public Industrial Sector stated that:

"To safeguard public money through investigating the accounting

transactions of the unit according to the government financial and accounting regulations. We issue a comprehensive report certifying the accuracy of the accounting records at the end of the financial year. For instance, we have to make sure that the purchases statute, in addition to the occasional memos issued by the supervising central ministries is conformed to, and that no company buys its purchases from the black market".

Accordingly, one could conclude that the basic objective of the auditing services provided by the Auditor General is to safeguard public money against theft and defalcations, and to ensure that the Government Purchases and Financial Statutes applicable in the manufacturing and hotel enterprises are rigidly adhered to. Therefore, the audit procedures incorporated in the audit programme designed by the Chamber are almost identical to those of the internal audit units of the Branch Corporations (Textile, Food Industries and Hotels and Tourism) as discussed above. Therefore, the objectives of this audit are confined to the financial and compliance audits, which include safeguarding the company's assets, ensuring accuracy and reliability of the company's accounting records and reports, and ensuring adherence to the company's managerial policies and procedures. The concept of efficiency audit has never been known and practised by the Auditor General. However, it is worth mentioning that the government has realised the shortcomings of the way auditing is performed in the public enterprises. Therefore, the government has provided for the conduct of efficiency audit in the 1985 bill of the Chamber of the Auditor General. While the bill maintains the same objectives of the 1970 Act, it stipulates that the role of the Chamber should be extended to include "maintaining control on the public enterprises and ensuring the optimum utilization of the material, human and the available technical facilities and to confirm the soundness of the financial performance and its efficiency with respect to achieving objectives". Moreover, the bill stipulates that the Chamber, through the execution of its duties stipulated in

the bill, is to evaluate the overall performance of the government bodies subject to the audit according to the provisions of the bill.

Another shortcoming, apart from the lack of efficiency audit, is the inability of the Chamber to audit the final accounts of the public enterprises on an annual basis. Therefore, apart from the first textile company, all the final accounts of the other companies and hotels were not audited for periods ranging from two to four years. This is mainly due to the fact that the public enterprises may not close their final accounts on time, the shortage of staff in the Chamber, and the transport problems to the public enterprises located outside the capital. At the end of the auditing process, the Auditor General sends his report to the People's (Constituent) Assembly and the individual public enterprises and corporations being audited. Apart from certifying the correctness of the accounting records of these enterprises, the report emphasizes the number of defalcations that took place during the financial year in these enterprises, the amounts of money defalcated and the reasons for the increase or decrease in the number of defalcations. For instance, the 1984/85 year report attributed the increase in the number of defalcations in the public enterprises to the improper and inadequate implementation of the government financial and accounting regulations, the inadequate punishment for defalcations and the delays in investigating the defalcation cases by the courts.

#### Summary of The Audit Function in The Public Enterprises.

- 1 - At the organization's level, only the first textile company is reported to have an established internal audit department,
- 2 - The audit services provided by the branch corporations in the manufacturing sector (Textile and Food Industries) are less regular. The same conclusion applies to the audit services

provided by the Auditor General. The audit services provided by the Hotels and Tourism Corporation are more frequent and regular, and

3 - The audit function in the public enterprises is heavily geared towards compliance and financial audits and ensuring the implementation of Government Financial and Purchases Statutes with a view to "protect public money from theft and defalcations", and the modern concept of efficiency audit has never been known or practised.

Table 6.13, on the other hand, shows the private enterprises that have got internal audit departments. Accordingly, all the private manufacturing enterprises are reported to have separate internal audit departments. Moreover, all the chief internal auditors report directly to the general managers of these companies. The role of the internal auditors in these companies is basically to safeguard the company's assets, to check the accuracy and reliability of the accounting records and reports in these companies and to encourage adherence to the managerial policies and procedures in these companies. However, none of the manufacturing companies is reported to have an interest in efficiency audit. All the private hotels are reported to have no established internal audit departments. However, in the Khartoum Hilton, the internal audit function is conducted biannually by two internal auditors working for the Hilton International Company which manages the hotel on management contract basis. According to the assistant comptroller, the two internal auditors perform all the mentioned activities and submit their reports to the company's headquarters in New York, and a copy is usually sent to the hotel's general manager in Khartoum.

On the other hand, all the private enterprises, both in the manufacturing and hotel sectors, according to the provisions of the 1925 Company Act, are externally audited by certified accountants. The 1925

Table 6.13: Objectives of The Internal Audit Department in The Public and Private Enterprises

	Public/ Private Companies	Chief Internal Auditor Reporting to			Objectives of The Internal Audit Department			
		General Manager	Financial Controller	Others	Safeguarding Company's Assets	Ensuring Accuracy of Accounting Records & Reports of the Company	Encouraging Adher- ence to the Comp- any's Policies & Procedures	Promote Operation- al Effic- iency
Industry	Public Sector							
Textile	Company 1	✓	—	—	✓	✓	✓	—
Industry	Company 2	—	—	—	—	—	—	—
Food	Company 1	—	—	—	—	—	—	—
Industry	Company 2	—	—	—	—	—	—	—
Hotel	Hotel 1	—	—	—	—	—	—	—
Industry	Hotel 2	—	—	—	—	—	—	—
	Private Sector							
Textile	Company 1	✓	—	—	✓	✓	✓	—
Industry	Company 2	✓	—	—	✓	✓	✓	—
Food	Company 1	✓	—	—	✓	✓	✓	—
Industry	Company 2	✓	—	—	✓	✓	✓	—
Hotel	Hotel 1	✓	—	✓*	✓	✓	✓	✓
Industry	Hotel 2	—	—	—	—	—	—	—

\* Reports to the Head Office of the Hilton International Company in New York.

Company Act provides that all the companies registered according to the provisions of the Act "(1) Shall once at least in every year and at intervals of not more than fifteen months, cause the accounts of the company to be balanced and a balance sheet to be prepared, and (2) The balance sheet be audited by the auditor of the company as hereinafter provided, and the auditor's report shall be attached thereto, or these be inserted at the foot thereof, a reference to the report, and the report shall be open to inspection by any member of the company". The Act then defines the role of the external auditors as "The auditors shall make a report to the members of the company on the accounts examined by them, and on every balance sheet laid before the company in the general meeting during their tenure of office, and the report shall state (a) whether or not they have obtained all the required information (b) whether in their opinion, the balance sheet referred to in the report is drawn up in conformity with the law, and (c) whether such a balance sheet exhibits a true and correct view of the state of the company's affairs according to the best of the information and the explanations given to them, and as shown by the books of the Company".

Our interviews with two external auditors showed that they concentrate on carrying out statutory audit in conformity with the provisions of the 1925 Company Act. Basically, therefore, external auditors emphasize the financial and compliance audits which involve safeguarding the company's assets, checking the accuracy and reliability of the company's accounting records and reports, and ensuring adherence to the company's policies and procedures. When asked about whether they conduct efficiency audit, they responded negatively on the basis that clients do not ask for such type of auditing. Both external auditors argued that:

"This type of auditing is very ideal in Sudan and so far we do



not practise it, and we do not think that it is important in the private sector as it is in the public sector. Even in England it is conducted only upon the request of the client. Even if the client wanted me to conduct the efficiency audit, I may refuse or accept it. As an accountant, I am not acquainted with some technical aspects, and therefore will be hesitant to accept it".

"Normally the board of directors do not require the efficiency audit in their letters of representation, because they do not know such things. This is why most companies failed".

In addition to these objectives, the external auditors provide other services, the most important of which is to give advice to their clients on tax matters and to answer the enquiries of the Taxation Department on various matters related to the contents of the financial statements. One auditor said:

"We audit the final accounts so as to serve the tax authorities and give advice according to the laws prevailing in the country".

External auditors also provide other services to their clients, especially the small firms. These include conducting the feasibility studies and compiling cost information to help clients apply for price increases.

#### 6.10 Computerization of Accounting Activities

The use of computers to handle the accounting activities in organizations has proved to be of great value and special importance for the level of sophistication of management accounting techniques in organizations. Myklebust (1976), maintains that:

"There is no doubt that the use of the computer would make the handling of the more complex systems which are implied in the employment of cost accounting techniques much more manageable".

Not only that, but the use of computers in accounting activities enables the financial controllers to devote much more time to providing more accurate and timely accounting reports and information, which in turn helps managers to use them. The Report of the Committee on Concepts of Accounting Applicable to the Public Sector (1970-'71) recognizes that:

"The use of the computer to make different reports for different responsibility levels would be a real surplus".

As table 6.14 shows, none of the six public enterprises is reported to have used the computer for any of its accounting activities. All the public enterprises attributed this to the financial difficulties arising from the tight budget approved by the Budget Administration of the Ministry of Finance, which is not in favour of such development expenditure. In the textile industry, for instance, all the financial controllers recommended the installation of a computer at the headquarters of the Textile Corporation in their annual meeting. The proposal was turned down by the Corporation management for financial reasons. The financial controllers of the other food companies and hotels expressed similar views.

"We have no need for the computer because our factory is small and we have these accounting machines which are enough".

"I do not even hope to introduce the computer in the accounts due to the electricity cuts. If I cannot replace three old accounting machines, how do you expect me to introduce the computer?"

and that:

"To introduce the computer you have to train and change personnel, which requires more costs and which we cannot afford. Managers in the Head Office (the Hotels and Tourism Corporation) are not aware of the importance of the computerization of accounts".

In the private sector enterprises, on the other hand, as table 6.14 shows, the two textile companies and the first hotel utilized computers in their accounting activities. The two textile companies used the computer for the general ledger and cost accounting systems, the payroll system, and producing the control reports. The first hotel used the computer for all the activities mentioned. The financial controllers of the two other food companies and the second hotel did not even express intentions to introduce the computer in the near future. In the first food company, the vice general manager who is a West German-educated engineer and a member of the family that owns

Table 6.14: Public and Private Enterprises Utilizing Computers in Their Accounting Activities:

Computerized Accounting Activities Public/ Private Enterprises	Cost Accounting & General Leger	Payroll System	Inventory Control System	Printing- out Control Reports	Others
Public Enterprises					
Textile Industry					
Company 1	—	—	—	—	—
Company 2	—	—	—	—	—
Food Industry					
Company 1	—	—	—	—	—
Company 2	—	—	—	—	—
Hotel Industry					
Hotel 1	—	—	—	—	—
Hotel 2	—	—	—	—	—
Private Enterprises					
Textile Industry					
Company 1	✓	✓	—	✓	—
Company 2	✓	✓	—	✓	—
Food Industry					
Company 1	—	—	—	—	—
Company 2	—	—	—	—	—
Hotel Industry					
Hotel 1	✓	✓	✓	✓	—
Hotel 2	—	—	—	—	—

the business, said that the major problem facing the introduction of the computer in the company is that his father - the original owner and founder of the business - is not convinced about the idea of introducing the computer in the business. He argued in this respect that:

"He does not like the ideas of the younger generation".

The financial controllers of the second food company and the second hotel rejected the idea of introducing the computer on the basis that it would be expensive. They argued respectively that:

"We have no intentions to introduce the computer because its costs will be more than its benefits".

and that:

"We have no intentions to use computers in the accounts. The owner of the hotel perceives it from the financial point of view".

#### 6.11 Concluding Remarks

In the previous sections of the chapter we discussed the application and nonapplication of the modern management accounting techniques in some selected public and private enterprises. In this section of the chapter we briefly review the major findings of the chapter, the implications of these findings for the first research hypothesis, and the implications of the findings for the conclusions of the previous empirical management accounting studies in the developing countries.

The discussion in the previous sections of the chapter are centred around the application and nonapplication of the modern management accounting techniques, as identified by the Western cost accounting textbooks (UK and USA), in the public and the private enterprises. Thus, the discussion has started by considering the application of budgets as a major cost accounting technique which is useful for planning and control and performance evaluation purposes. Our discussion in this report has revealed that the budget in the public enterprises was reduced to the conventional type of government budgeting with its well-

known expenditure classification, and which is identical to the one used by the other government units, such as the government departments (Meteorological Department, Attorney General,... etc) and the public utilities (hospitals, universities,...etc.). Additionally, the budget is mainly used as a vehicle to estimate and execute the objectives of the state budget such as economic reform and fighting inflation. In contrast, the private enterprises have developed comprehensive budgets which incorporate the major operations in these organizations such as production, sales forecasts, profit planning, and programmes for capital expenditure. These budgets have effectively been used for planning and control and performance evaluation purposes. Our discussion also revealed that the capital budgeting techniques are lacking in the public enterprises as the investment decisions are totally controlled by the outside government bodies. In the private enterprises, on the other hand, some companies which made investment decisions have applied the crude method of the payback period, whereas some other private enterprises have referred the evaluation of their investment decisions to foreign expertise for analysis. Moreover, while our discussion has revealed that the application of the cost accounting systems is hardly known in the public enterprises, it is widely-applied by the private enterprises.

Interestingly enough, our discussion in Chapter 6 revealed that the application of the standard costing systems in both the public and the private enterprises is limited only to the cost item of the direct materials and its use is confined to the development of the static budget. This finding tends to suggest that we should not always investigate and expect the application of the modern management accounting techniques in the developing countries in a blind manner. Though it is not our intention to address the question of why at this stage, my

first hand impression is that one has got to take into account the developing nature of the Sudanese economy which is characterized by a turbulent and a less competitive environment which may have discouraged the use of rigorous standard costing systems. By the same token, our previous findings tend to suggest that the application of the EOQ technique for inventory planning and control purposes as suggested by the Western cost accounting textbooks could be counterproductive if implemented by the Sudanese manufacturing companies. This is because if these companies implemented the EOQ technique, they could easily be vulnerable to the problems of stockouts due to the hard currency and transport problems in the country.

Furthermore, our findings in Chapter 6 tend to indicate that even when the public enterprises applied some sophisticated management accounting techniques, such as the residual income in all the public manufacturing companies, this does not necessarily mean the managers' awareness of the usefulness of this technique in performance evaluation. This is because most of the chief executives of these public enterprises think that they are not even responsible for the poor performance of their enterprises and put the blame on the outside government supervising bodies. Nevertheless, they are using this technique only as 'a legally required nuisance' and in conformity with the government financial regulations. In the private enterprises, on the other hand, the performance measurement techniques used, which include the absolute amounts of profits, return on investment (ROI), and the gross profit ratio, are meant to measure how well an enterprise did during the financial year and to convey this message to the shareholders for rigorous evaluation of the results of operations in their annual general meeting.

On the other hand, my investigations tend to confirm that the

internal and the efficiency audits have never been known in the public enterprises. Instead, the public enterprises are externally-audited by the Chamber of the Auditor General, whose audit concentrated on the traditional statutory audit. In the private sector, on the other hand, almost all the private enterprises have got their own internal audit departments. Finally, our discussion of the computer has never been utilized in the public enterprises. In contrast, three private enterprises have effectively utilized computers in a wide range of their accounting activities to the extent that it has positively affected the utilization of other management accounting techniques and the role of the controllership function in these enterprises.

Following this brief review of the application and non-application of these management accounting techniques in the public and private enterprises, one has to address the implications of these findings for the first research hypothesis on the level of sophistication of management accounting techniques in the public and the private enterprises. Thus, our previous detailed discussions on the application and non-application of the management accounting techniques in both the public and private enterprises, tend to indicate that in almost all the public enterprises most of these techniques are not applied, whereas most of these techniques are applied in most of the private enterprises. Arguing for the general case, therefore, one could conclude that the level of sophistication of management accounting techniques is, generally speaking, high in the private enterprises when compared to their counterparts in the public sector. These conclusions, therefore, tend to confirm the first research hypothesis.

However, one has to warn against the overgeneralization of conclusions on the level of sophistication of management accounting

techniques in the private sector enterprises. This is because a closer look at the discussion on the application of the individual management accounting techniques in the private enterprises made it quite clear that two private enterprises, that is, the first food company and the second hotel, have less sophisticated management accounting techniques compared to the other four private enterprises. Though this will not affect our argument for the general case in the private enterprises, nevertheless, it suggests that there is a difference in the level of sophistication of management accounting techniques among the private enterprises themselves, though this was not originally addressed in the main research question. Automatically, then, another question, which was not originally posed by the main research question, arises. This question is: if there is a difference in the level of sophistication of management accounting techniques among the private enterprises, why does this difference arise? Definitely, the answer to this question is to be pursued in the next part of the thesis as part of the answer to the main research question. Though it is premature to say why at this stage, certainly the variables of the conceptual framework of the research, which was developed in the first part of the thesis, would provide an answer to this question. Nevertheless, the point which one has to emphasize is to warn against the dangers of overgeneralization of conclusions, and therefore, it would be misleading to conclude that the level of sophistication of the management accounting techniques is equally high in all the private enterprises.

Nevertheless, the implications of the findings of this chapter for the body of knowledge on the management accounting practices in the developing countries are significant. The literature survey of the empirical management accounting research in the developing countries, conducted at the beginning of this study, showed that there is almost



unanimous agreement that the level of sophistication of management accounting techniques in the developing countries is generally very low. Taking the Sudanese case as a developing country, the findings of this chapter tend to qualify this conclusion and suggest that while the level of sophistication of management accounting techniques is low in the public enterprises, it is high in the private enterprises. The major contribution of this study, therefore, is that it suggests that the level of sophistication of management accounting techniques in the Sudanese enterprises largely depends on the status of the business organizations, that is, whether an enterprise is a government-owned or a privately-owned one.

These findings, therefore, tend to indicate a new trend in the application of the modern management accounting techniques in the developing countries. Moreover, these findings, make it clear that the conclusions of the previous empirical management accounting studies in the developing countries should no longer be taken for granted to represent the current state of the art in the developing countries. As the conclusions of this study do not necessarily apply to other developing countries, this study shows the urgent need for further empirical accounting research within the public-private ownership dichotomy. On the whole, therefore, the findings of this chapter represent a turning point in the current body of knowledge on the management accounting practices in the developing countries.

Unlike the conclusions of the previous empirical management accounting research in the developing countries, the conclusions of this study tend to suggest that the level of sophistication of management accounting techniques in a developing country could be associated with the ownership of the enterprise. Theoretically speaking, subject to

the findings of the next part of the thesis, it would appear that this difference in the public and private ownership of the Sudanese enterprises has triggered differences in some contingent variables which in turn have contributed to this difference in the level of application of the modern management accounting techniques between the public and the private enterprises. The various factors underlying this difference are the focus of the third part of the thesis, that is, Chapters 8, 9 and 10.

## Chapter 7

### The Role of the Controllership Function in The Public and Private Sector Enterprises

#### 7.1 Introduction

The role of the Controllership Function, as it has come to be known in the modern business organizations, has expanded significantly during recent years to match the increasing complexity of organizations and the ever changing business environment. Sathe (1982) broadly defines the role of the Controllership Function as:-

1. Preparation of reports for stockholders and government agencies,
2. Protection of assets, and
3. Provision of information and analysis to assist management in the running of the business.

The focus of this study and this chapter in particular, is on the third responsibility area, in line with our previous definitions in Chapter 5. The scope of this chapter is also extended to include the management's use of accounting data, and consequently, this chapter solicits the managers' opinions on the uses or non-uses of the accounting data which they receive.

The analysis of this chapter is mainly based on the responses of both managers and financial controllers of the sample enterprises and in some Public Corporations which supervise the public enterprises, to the questions raised by the researcher (see Appendix A, the interview guidelines, Section B). The analysis is also based, to a limited extent, on our observations in the sample organizations, and particularly the first public food company in which we stayed for more than one month. Finally, this chapter, like

the previous one, is meant to be fairly descriptive, and it does not address the question of why, which is the focus of the third part of the thesis, that is, chapters 8, 9 and 10.

Nevertheless, sometimes we briefly refer to some factors which affect, either positively or negatively, the role of the controllership function in the public and private enterprises, with a view to elaborating them later in the respective chapters.

## 7.2 The Role of the Controllership Function in The Public and Private Sector Enterprises

Tables 7.1 and 7.2 show respectively the number of managers receiving accounting data and the types of accounting reports received by managers of the public enterprises, both in the manufacturing and the hotel sectors. Accordingly, only six out of twenty two managers interviewed in the public enterprises, are reported to have received accounting data. All the six managers who received accounting data are the general managers of these companies and hotels. These findings, therefore, tend to suggest that the general managers are the prime and sole recipients of the accounting data in the public enterprises. This in turn indicates that the communication channels between the financial controllers and the middle managers in the public enterprises are poor and lacking, and where they exist, are only a one-way relationship. In the manufacturing companies, for instance, the production managers estimate the expected production quantities and the required raw materials and then submit them to the financial controllers to help them estimate the company budget. The relationship between the financial controllers and the sales managers, on the other hand, is

confined to the control duties whereby the financial controllers cross-check the accuracy of the sales invoices and in some cases provide the overdue amounts of accounts receivable upon request. Similar relationships existed in the two public hotels. The two food and beverage managers in the two hotels send the daily revenue from the food sales and their consumption of raw materials to the financial controllers to enable them to prepare the daily summary of revenue report. Similarly, the other two personnel managers interviewed in the two hotels made it clear that they have no contacts with the financial controllers whatsoever apart from notifying them of any new recruitments or dismissals to help them prepare the monthly pay sheet.

Tables 7.3 and 7.4, on the other hand, show respectively the number of managers receiving accounting data and the types of accounting reports in the private manufacturing companies and hotels. According to these tables, eighteen out of twenty two managers interviewed in the private enterprises, are reported to have received various combinations of accounting data. The other four managers who do not receive any accounting data are the middle managers of the relatively small enterprises, that is, the first food company and the second hotel. Therefore, in these two enterprises, which are family-owned and managed, only the owners of the enterprises receive accounting data. In the first food company, both the general manager and his deputy co-ordinate all the contacts between the managers of the different departments. Thus, if any manager wants to contact the financial controller of the company, he has to contact

the general manager who in turn contacts the financial controller on the issue. Therefore, as a family-owned enterprise, the owners maintain tight control on the day-to-day operations. The deputy general manager argued:-

"In our Company we do not allow managers of the different departments to contact each other directly".

In the second hotel, on the other hand, the two middle managers interviewed did not even show any interest in receiving accounting data on the basis that it is the owner of the business who needs and receives accounting data.

The personnel manager of the hotel argued:-

"The financial reports are submitted to the general manager and his deputy, and I have no need for them. My relationship with the accounts arises only when someone is recruited or dismissed and in that case I notify them to take this into consideration when preparing the salaries".

#### 7.2.1 Types of Accounting Reports

Table 7.1 shows that there are three types of accounting reports received by the general managers in the public manufacturing companies, the most important of which is the conventional financial statements. This means that in almost all the manufacturing companies, the traditional financial statements, though much in arrears, are the major and sole product of their management accounting systems. The second type of accounting report which is produced only in the first textile company, is the cost report. The cost report is produced on a monthly basis and it shows the actual amounts produced during the month and the actual costs incurred during the month product-wise. The third type of accounting report, which is again produced only in the first textile company, is the cash flow report. The cash flow report, being produced on a monthly basis, shows the actual

sources and uses of cash funds during the month, and the cash balances at the end of the month. Table 7.2, on the other hand, shows two other types of accounting report received by the general managers of the two hotels in addition to the traditional financial statements. The first report is the daily summary of revenue report. This report, as its name implies, is produced on a daily basis and it contains the daily revenues from some departments in the two hotels, such as the revenues from the room rates, the restaurant, the telex and the telephone services, the laundry and the conference hall. The second category of accounting report produced in the two public hotels is the consumption of provision report, which is produced on a monthly basis. This report shows the quantities and the money values of raw materials used in making the various food menus (dishes), the number of the various menus (dishes) made during the month, and the revenues from the sales of food during the month.

Our investigations in all the public enterprises, including both the manufacturing companies and the hotels, showed that the accounting reports received by the general managers are typical to the ones sent to the supervising Branch Corporations and the other government bodies. Therefore, when the researcher asked for copies of the accounting reports produced in the manufacturing companies, we found that they are 'carbon copies' of the accounting reports sent to the branch corporations which supervise and manage the publicly-owned food and textile factories, that is, the Public Corporation for Spinning and Weaving and the Food Industries Corporation.

**Table 7.1: Types of Accounting Reports Received by Managers in the Public Manufacturing Companies:**

Level of Management	No. of Managers Interviewed	Do you receive Accounting Reports?		Types of Accounting Reports				
		yes	no	Budget Follow-up	Financial Statements	Cost Reports	Cash Flow Statements	Others
Top Management	7	4	3	-	4	1	1	-
Middle Management	7	-	7	-	-	-	-	-

N.B. As a manager may receive different accounting reports, the number of managers receiving any accounting report is not mutually exclusive in tables 7.1, 7.2, 7.3 and 7.4.

**Table 7.2: Types of Accounting Reports Received by Managers in the Public Hotels**

Level of Management	No. of Managers Interviewed	Do you receive Accounting Reports?		Types of Accounting Reports				
		yes	no	Daily Summary of Revenue	Consumption of Provision	Budget Follow-up	Financial Statements	Others
Top Management	4	2	2	2	2	-	2	-
Middle Management	4	-	4	-	-	-	-	-



**Table 7.3: Types of Accounting Reports Received by the Managers of the Private Manufacturing Companies**

Level of Management	No. of Managers Interviewed	Do you receive Accounting Reports?		Types of Accounting Reports				
		yes	no	Budget Follow-up	Financial Statements	Cost Reports	Cash Flow Statements	Others
Top Management	7	7	-	5	7	4	4	5*
Middle Management	8	6	2	6	2	-	-	-

\* This category includes accounting reports on the cash position and the accounts receivable aged analysis in the two textile companies.

**Table 7.4: Types of Accounting Reports Received by the Managers of the Two Private Hotels**

Level of Management	No. of Managers Interviewed	Do you receive Accounting Reports?		Types of Accounting Reports				
		yes	no	Daily Summary of Revenue	Consumption of Provision	Budget Follow-up	Financial Statements	Others
Top Management	3	3	-	3	2	1	3	1*
Middle Management	4	2	2	2	-	2	2	1*

This category includes the following three different accounting reports produced in the first hotel:

- Manning Guide Comparison and Absenteeism Report,
- Quality Assurance Report, and
- The Productivity Report

Thus the financial controller of the first textile company, which is the biggest manufacturing company, is required by the Public Corporation for Spinning and Weaving to send monthly production reports and the other accounting reports referred to earlier. In the other three food and textile companies, while the financial controllers are required to compile production reports on the budgeted and actual production on a monthly basis, they are also required to compile production reports on the budgeted and actual production on a monthly basis, they are also required to send their financial statements to these corporations according to the Government Financial Statutes implemented in these companies (for further details, see Chapter 8, Section 8.1). The branch corporations, by virtue of their warrants of establishment, are supposed to consider these reports about the course of the work and the financial position of their production units in order to prepare frequent reports and recommendations to the Ministry of Industry, which supervises all the public industrial sector.

By the same token, all the hotels in the public sector are required, by virtue of the Financial Statute of the Hotels and Tourism Corporation, to send the traditional financial statements to the Corporation. Moreover, the monthly consumption of provision report received by the hotels general managers is identical to the one sent to the Hotels and Tourism Corporation, which manages the publicly-owned hotels. This report is mainly produced for and sent to the Technical Inspection and Audit Unit, of the Corporation, to conduct the monthly audit which we have already

discussed in the previous chapter. Financial controllers are required by their job description, designed by the Hotels and Tourism Corporation, to give top priority to preparing this monthly report as it is considered as their fourth function.

On the other hand, all the financial statements produced on an annual basis are also typical of the ones submitted to the Auditor General. This is done in conformity with the provisions of the 1970 Act of the Chamber of the Auditor General, according to which all the bodies audited by the Chamber are supposed to submit their financial statements not less than six months following the end of the financial year by the end of June.

Following this discussion on the structure and types of accounting reports in both the manufacturing companies and the hotels, one could conclude that there are no special accounting reports prepared for the management of the public enterprises and that the accounting reports received by the general managers are typical to the ones sent to the supervising branch corporations and the other concerned government bodies.

However, it was noticed in all the manufacturing companies, with the exception of the first textile company, that the general managers showed particular interest in being informed about the cash position of their companies. This is particularly true as these companies faced chronic liquidity problems to the extent that in most cases they are unable to pay for their raw materials

purchases and the salaries of their employees. Therefore, and in the absence of regular and frequent accounting reports, top managers depended heavily on direct face-to-face verbal communication with the financial controllers to get information about the daily cash position of their companies.

Thus, in the first food company, where we stayed for almost one month, we observed that the financial controller usually meets the general manager of the company in his room on a daily basis, and briefs him on the cash balances. The financial controller does this by means of a small sheet of paper, which only shows the amounts produced and sold in the previous day and the total cash balances left. At one time when we asked the financial controller if we could obtain a copy of this sheet of paper, he told the researcher that he disposes of the sheet of paper as soon as he explains its contents to the general manager. It is beyond doubt that the accuracy of such verbally-communicated information is questionable. For instance, at the end of the month it was quite clear that the actual cash balances were much lower than suggested by the financial controller. Having delayed the payment of salaries for one week, the general manager told the researcher angrily:

"He (the financial controller) gave me misleading data".

In the second food company the general manager made it clear that he depends mainly on direct contact with the financial controller to know about whether or not his company will be in a position to pay salaries of the employees at the end of the month. He stated:

"The regular report is more verbal than written. We ask the financial controller on a weekly basis about the amounts of money paid by the wholesalers, how much we spent, and what is left so as to know whether or not we could pay the salaries which are a headache for us."

Finally, in the second textile company, the financial controller used to bring and explain a small sheet of paper to the general manager which shows the cash balances both in the bank and the safe. These observations and statements tend to confirm that where managers in the public enterprises identified particular areas of interest on which they would like to be informed, they depend mainly on the frequent informal information which is passed to them verbally by the financial controllers.

Tables 7.1 and 7.2, on the other hand, show that no manager in the public enterprises has received a budget follow-up report, that is, an accounting report which compares the actual expenditure or revenue with the budgeted. This is closely connected with the objectives of the budget in the public sector, which include the development of the state budget and expenditure control. Therefore, as the budget of the public enterprises is a basic tool to execute the government fiscal policies (as will be discussed in more detail in the next chapter), the budget control, by virtue of Law, is the joint responsibility of both the financial controllers and the general

managers of these enterprises. The Government Financial Statutes, which are fully implemented in the manufacturing companies, and the Financial Statute of the Hotels and Tourism Corporation have stipulated and emphasized this responsibility, as will be discussed in more detail in Chapter 8. Failure to comply with these government financial regulations with respect to operating within the approved budget is a criminal offence which is punishable by Law. Accordingly, the 1970 Act of the Chamber of the Auditor General states that any person is considered as "committing a crime for which he has to be imprisoned for not more than ten years or pay fines or both, if he exceeds the budget by means of overspending".

To discharge this responsibility, the financial controllers of the public enterprises have established a separate section, usually called the General Accounts and Budget Section, to help them monitor the budget in the public enterprises. In the two hotels, the two financial controllers themselves handle the budget follow-up process. The budget follow-up process in both the manufacturing companies and hotels, follows the same pattern. To facilitate this process, all the public enterprises maintain what is known as the Budget Book, which is one of the most important books of accounts in these enterprises. The chart of accounts of these Budget Books is no more than the various budget items in the expenditure and revenue sides of the budget structure, as we discussed in the previous chapter. At the end of each month, the General Accounts and Budget Sections in the manufacturing companies and the two financial controllers of the hotels, sum up all the actual expenditure

for the month and for the year-to-date for all the budget expenditure items. The actual year-to-date figure for any budget expenditure item is then compared with the budgeted figure for any expenditure item for all the financial year. If the year-to-date figure of the actual expenditure for any budget item is far less than the annual budgeted figure for the same budget expenditure item, then the financial controller of the company or the hotel does not bother about this budget item. However, if the actual year-to-date figure for any budget expenditure item is equal or about to be equal to the budgeted figure of the expenditure item for the overall financial year, then this budget expenditure item is of major concern to the financial controller. In this case the financial controller notifies the general manager of the company or the hotel immediately. The objectives of this notification are two-fold. First, the general managers of these companies and hotels have to stop authorizing any new expenditure in the relevant expenditure item. Second, the general managers of these companies and hotels have to contact their corporations headquarters asking for more budget appropriations, and the latter in turn contact the Budget Administration of the Ministry of Finance for the same purpose.

It is for this reason, therefore, that all managers at different levels, showed no interest in receiving the budget follow-up reports. When managers were asked about whether operating within the approved budget is a criterion for doing well or badly, there is unanimous agreement that

this is the entire responsibility of the financial controllers and that they do not bother about the probability of exceeding the budget. Thus, the following responses by the top and middle managers in the manufacturing companies and the hotels are typical of many:

"The budget and the approved items are in the accounts department, and it is their responsibility to ensure that we did not exceed it."

"I have nothing to do with the financial matters, and the accountants in the factory are supposed to control the budget."

"If there is any budget item which we are about to exceed, the financial controller notifies me immediately and tells me to be careful."

"Any application for expenditure passes through the financial controller who makes sure that there is a balance left in the budget item."

and that:

"Our expenditures do not exceed the budget, and the financial administration has got a monthly report on the actual expenditures - if we reach a certain level, they would let me know."

Tables 7.3 and 7.4 show the types of accounting reports in the private enterprises, including both the manufacturing companies and the hotels. These tables show that the accounting reports received in the private enterprises could be classified into seven categories. The most important set of accounting reports received by managers in the private sector is the budget follow-up report, since about fourteen managers are reported to have received this accounting report. All these managers are reported to have received the budget follow-up report on a monthly basis, except for the three managers of the second food company, who receive the report on a quarterly basis. The budget follow-up report compares the actual



expenditure figures, classified budget-item-wise, with the budgeted expenditure. The budget follow-up report then shows the budget variances item-wise for the company as a whole and for the individual departments. Unlike the case of the public enterprises, managers of the private enterprises showed significant interest in receiving the budget follow-up reports. Managers at different levels made it clear that operating within the budget of their companies and departments is one of the criteria of doing well or badly. This in addition to achieving a sales, a profit and a production target. The following statements by managers, which are typical of many, tend to confirm this conclusion.

"The criteria for doing well or badly in my department is when the sales figures are very high and there are no stocks and when I operate within the approved budget of the department."

"We tell when we are doing a good job when we achieve the budgeted production figures both in terms of quantity and quality, when we operate within the budgeted expenses, and when we improve the skills of my subordinates."

"You know the performance of the company whether it was incurring losses or making profits. As far as your budget is concerned, these reports (Budget follow-up reports) act as a check and any abnormal expenditure, especially the overtime expenditure, has to be justified."

and that:

"We use these reports to evaluate the progress of the department and to investigate the budget variances. We spend much time investigating the means of controlling the payroll, which is the highest expense item in the Food and Beverage office."

The second type of accounting report in the private enterprises is the traditional financial statements, which are mainly produced for the external users, that is, the Taxation Department and the shareholders. The third type of accounting report, which is only received by the managers

of the two textile companies, is the cost report. The daily cost report shows the different costs of production such as the raw materials, electricity power, sales expenses and other costs. The report then deducts these costs from the sales value of the daily production and then ends up with the gross contribution of the amounts produced per day.

The fourth type of accounting report, which is again produced only by the two textile companies, is the cash flow report, which is produced on a monthly basis. This report, which is usually produced at the beginning of each month, shows the monthly routine expenses to be paid by these companies such as salaries, electricity power, raw materials, ...etc. and the expected sales revenue for the month. This report signals the monthly deficit balances which are to be financed either from the resources of the two companies or by means of short-term loans from the commercial banks. The fifth and sixth types of accounting reports, which are produced only in the two hotels, are the daily summary of revenue report and the consumption of provision report. The contents and the frequency of producing these reports are identical to the ones produced in the public hotels. The consumption of provision report, which is produced only in the second family-owned hotel is identical to the one produced in the public hotels in terms of its contents and format.

In addition to these accounting reports, seven managers in the two private textile companies and the first private hotel, received a variety of 'other' accounting reports. In the two textile companies, this category of the other

accounting reports includes accounting reports on the company cash balances for different periods and the accounts receivable aged analysis report which shows the name of the customer, the total amounts of accounts receivable, the amounts expected to be received in the near future, and the status of the overdue accounts receivable.

In the first private hotel, the category of 'other accounting reports' includes three different accounting reports. The first report is the Manning Guide Comparison and Absenteeism Report. This report shows the budgeted number of employees on the payroll for any month compared with the actual number of employees at work for the same month and the absenteeism ratios due to vacation, holidays, or sick leaves, and the absenteeism with and without pay. The second report is the Quality Assurance Report which produces the results of the monthly questionnaire distributed by the Operations Analyst of the hotel to the hotel occupants and visitors, and it shows the favourable and unfavourable comments on the accommodation and catering services, and the responsible manager whose office is criticized or praised. The third report is the Productivity Report, which shows the monthly business volume of the hotel in terms of the occupancy percentage and the number of occupants per month, together with their nationalities and their business. This report also shows statistics on the number of businessmen who occupied the Especial Business Service rooms and the number of the airline crews who occupied the hotel during the month. Indeed, the assistant comptroller of the first private hotel made it

clear that they spend most of their time preparing reports to the different management levels. He argued in this respect that:

"Most of our work here is reporting."

This discussion on the role of the controllership function in the public and private enterprises shows clearly that the financial controllers of the two private textile companies and the first private hotel, provide frequent and wide-ranging accounting reports to various management levels compared to their counterparts in the public enterprises and the other private enterprises. The obvious reason is that the two textile companies and the first hotel have utilized computers in their accounting activities. This in turn freed the financial controllers of these enterprises from the burden of book-keeping and enabled them to concentrate on and devote much time to providing informational services to the management of these enterprises. The findings of this study imply that where computer technology is used in the accounting activities of enterprises in the developing countries, then the quality of the informational services provided by the controllership function would improve dramatically in terms of the number of managers receiving accounting data and the frequency and types of accounting reports produced. Hopwood (1978), referring to the impact of computers on the role of accountants in providing accounting information, states that:

"The advent of effective computerized accounting systems may however be a major factor influencing the role of the accountant. Where such changes have taken place, then the book-keeping activities and the demands of the work flow may be less significant, allowing the accountants greater time to develop the service activities."

### 7.2.2 Managers' Views on Accounting Reports

Managers' opinions on whether the accounting reports which they receive are satisfactory in terms of their relevance, accuracy and timeliness were solicited. This is deemed necessary as managers may not use the accounting data if, for one reason or another, it is at fault (Mintzberg, 1975). In the public enterprises, the six general managers, who were the sole recipients of accounting data, agreed that the accounting reports which they receive, mainly being the traditional financial statements, are satisfactory in terms of their accuracy and relevance. No one manager identified a need for particular accounting reports apart from those which are mainly produced and sent to the government supervising bodies. This tends to suggest that the managers of the public enterprises failed to identify any areas of interest on which they would like to receive separate and special accounting reports. Most important, when managers of the public manufacturing companies expressed concern about the daily cash position of their companies, they prefer to rely on the informal and direct verbal information released by the financial controllers. However, all the top managers complained about the timeliness of the financial statements. Thus, the general managers of the two food companies claimed that they had not received these financial statements for the last two financial years, whereas the general manager of the second textile company said that he had not received the financial statements for the last four years. The general manager of the first textile company, who receives the financial statements on

a monthly basis, expressed similar views:

"These reports are very useful, but they are normally ten days late."

In the public hotel industry, on the other hand, the general manager of the first hotel said that he had not received the financial statements for the last two years, whereas the general manager of the second hotel argued that he had not received the final accounts for the last five years.

Financial controllers' opinions on these claims were solicited for cross-checking purposes, and they supported the point made by the general managers that the financial statements are much in arrears. As these accounting reports are mainly prepared for external government bodies, one reason for not preparing these accounting reports on time, is that these government bodies do not insist on receiving them on the specified due dates. Consequently, all the financial statements (the B/S and P/L A/C) of the public enterprises, which are mainly prepared for the annual audit, are lagging behind because the Chamber of the Auditor General is unable to conduct the annual audit for all the public enterprises due to the severe staff shortage, as we have already discussed. Additionally, in the manufacturing companies, due to the recent restructuring measures taken in the public industrial sector (more details are to come up in Chapter 9), neither the Ministry of Industry nor the supervising branch corporations (Food Industries and Textile Corporations) insist on receiving the financial statements on the due dates and do not give feedback to the financial controllers and managers of these production units. Therefore, the financial controllers of these companies

are discouraged from sending these accounting reports on the specified dates. The following statements by the financial controllers are suggestive.

"Though we send a copy of the final accounts, the Ministry of Industry does not investigate them and instead put them in the rubbish bin. Nevertheless, we send these reports in conformity with the government financial regulations."

"We do not receive any feedback from the Corporation (Textile Corporation) or the Ministry of Industry on the annual reports which we send to them. But still we have to send them according to the frequent notices from the corporation."

and that:

"You have to send these reports because your boss is your boss, and you have to respect the government regulations."

Unlike the case of the other manufacturing companies, the monthly consumption of provision report, which is produced in the hotels mainly for the use of the Hotels and Tourism Corporation, is said to be produced on time. The obvious reason is that this Corporation, which did not undergo any restructuring changes like the manufacturing sector, showed particular interest in receiving and using this report for control and audit purposes, as we discussed in the previous chapter. Therefore, one could conclude that generally speaking, most of the accounting reports produced in the public enterprises are much in arrears.

Managers' views on the accounting reports which they receive were also solicited in the private enterprises. As far as the timeliness of these accounting reports is concerned, all the managers in the private enterprises which are relatively large, specify deadlines at which the accounting reports are to be compiled. Thus the traditional

financial statements which are originally produced for the use of the Taxation Department and the shareholders, are normally submitted one or two months later after the end of the financial year on December 31st, with a view to enabling the Taxation Department to estimate and collect the business profit tax. Moreover, managers of these companies and hotels insisted on receiving the other accounting reports which are specifically prepared for management purposes on the specified due dates. Therefore, the management in the two textile companies and the first hotel, who receive most of the accounting reports on a monthly basis, specify the end of the first week following the end of each month as the deadline for receiving these accounting reports, to which financial controllers have to conform. In the second food company, where all the accounting reports are produced on a quarterly basis, the end of the second week following the end of each quarter is specified as the deadline. The general manager of the company, argued in this respect that:

"We decided that these reports should be ready on the 15th of the month following the end of each quarter, otherwise these reports will be meaningless."

In the two family-owned and managed enterprises, that is, the first food company and the second hotel, which are relatively small compared to the other private enterprises, it would appear that owners of these businesses who handle most of the daily and routine transactions involving cash receipts and payments, show particular interest in receiving the daily accounting reports to tighten their grip on their enterprises and supplement the direct control and observ-



ation of the business operations. In the first food company, for instance, the financial controller used to submit a daily report on the cash payments, receipts and balances for the previous business day the moment both the general manager and his deputy arrive. When asked about the reasons why he insists on receiving this report early in the morning, the general manager who is also the owner of the business argued:

"I want to know what is going on like any other merchant, and also I want to make sure that the accountants record in the books and do not put money in their pockets."

The general manager and the owner of the second hotel, on the other hand, made it clear that he insisted on receiving the daily report to make sure that the cash receipts and payments shown on the daily summary of revenue report coincide with those shown on his personal cash book, and that the cash balances on the report are equal to the cash balances in his safe. He stated that:

"I have to see and sign any document in the hotel. You see, this is my book and this is my safe and they should match with the daily report which is satisfactory and contains all the information I need. Though this is a difficult way of maintaining control, it is ideal for us."

Moreover, almost all managers in the private enterprises agreed that the accounting reports which they receive are satisfactory as far as their relevance and accuracy are concerned. The following comments are typical of many.

"This accounting report is looked upon as a parameter and as a means of performance evaluation."

"These reports are reliable because they follow the uniform system of accounting of Hilton International which is imposed by the Head Office in New York."

Two middle managers in the second food company, however,

expressed their concern about the reliability and the aggregate nature of the accounting reports which they receive. They stated that:

"These financial statements are not so detailed. They tell you the results of operations of the company as a whole, rather than department-wise."

and that:

"The margin of correctness of these financial statements is only 90%."

### 7.2.3 Overview of The Role of The Controllership Function

In this section, we present and discuss the financial controllers' opinion on the percentage of time which they spend on the different accounting activities with a view to obtaining a rough estimate of what they are actually doing in their organizations. Table 7.5 presents the responses of the financial controllers in the public enterprises to this question. This rough estimate shows that the bulk of the financial controllers' time in the public enterprises is spent on book-keeping activities. One possible reason for this is that all the book-keeping activities are handled manually in the public sector and that no enterprise has used computer technology. Another area of accounting activity to which financial controllers in the public enterprises devote much time is reporting to the external government bodies. It is worth mentioning that, in addition to the regular production and accounting reports which the financial controllers of the public enterprises are supposed to send to the Ministry of Industry and the other branch corporations as we have already discussed, in most instances these government bodies may ask for production and accounting reports on an irregular basis. For instance,

the Public Corporation for Spinning and Weaving asked the financial controller of the first textile company, which is the largest, to compile a number of production and accounting reports to enable the corporation to send its recommendations to the Ministry of Industry concerning the rehabilitation of the public textile sector. The financial controller of the company showed the researcher a letter sent by the corporation to him in this respect. Part of the letter reads as follows:

"Please send us the production and the periodical reports about the course of the work in your factory and the financial position so as to raise recommendations to the Ministry of Industry."

In the hotel sector, during our visits to the first hotel, the financial controller was very busy preparing an accounting report on the actual revenues and expenditures for the last nineteen days of December 1985. The report was required by the Hotels and Tourism Corporation to apply to the Budget Administration of the Ministry of Finance, for more budget appropriations for some expenditure items like ice and washing-up liquids which were about to be exhausted. The financial controller of the first hotel then showed the researcher the letter from the corporation asking for this report. Part of the letter reads as follows:

"Please provide us with the details of revenues and expenditures for the last nineteen days of December 1985. As this matter is very important, please give it your attention."

Table 7.5, on the other hand, shows that some financial controllers in the public enterprises, particularly in the second textile company and the first hotel, devote much time to the category 'others' and getting involved in pure

clerical work and handling the routine operations. For instance, the financial controller of the second textile company said that his department devotes 33% of its time to other accounting activities such as the budget control, complete supervision of the stores and the completion of the receipt and payment orders. Most import, the financial controller of the company, as well as the other enterprises, has to prepare the budget proposals and discuss them with the corporation officials. This is particularly time-consuming for some of the companies located outside the capital. The financial controller of the first hotel said that his department spends about 40% of its time on 'other accounting activities', such as sorting out the daily financial problems with the permanent contractors who supply the perishable goods and collection of the overdue accounts receivable from the occupants. Emphasizing this point, the financial controller of the first hotel argued that:

"Honestly, we usually come in the evenings to do the official work which we are supposed to do during the official working hours."

The result of all this is that very little time is left for internal reporting to management in the public enterprises. Consequently, one may conclude that the major objective of the controllership function, besides record-keeping, is to provide regular and irregular accounting and production reports as required by the supervising government bodies to enable them to maintain control on the operations of the public enterprises. Reporting to the management of these enterprises comes only as a by-product of fulfilling this objective.

Table 7.5: The Percentage of time which the Controllershship Function spend on different accounting activities in the public enterprises:

Industry	Companies/ Hotels	% of time which the controllership function spend on the different accounting activities			
		book-keeping	reporting to management	reporting to external govtr. bodies	others
Textile Industry	Company 1	55%	10%	30%	5%
	Company 2	40%	2%	25%	33%
Food Industry	Company 1	55%	25%	15%	5%
	Company 2	60%	20%	10%	10%
Hotel Industry	Hotel 1	20%	20%	20%	40%
	Hotel 2	50%	25%	15%	10%

Our observations in the first food company, in which we stayed for more than one month, tend to confirm these conclusions in at least the manufacturing companies which are identical in the application of the Government Financial Statutes. Our observations in the first food company showed that the accountants of the company are deeply involved in the daily routine and clerical work, that is, record-keeping of the daily transactions of the company, and authorizing the payment and receipt orders. Some of them are working hard to close the final accounts for the last two years (1983/84 and 1984/85). The problem of updating the financial statements of the company is further aggravated by the fact that further adjustments for these financial statements may be needed if the final

accounts for the year 1982/83 (which is currently under audit) are changed by the Auditor General. The financial controller himself is very busy handling some routine work. This includes his daily meeting with the general manager of the company to brief him on the cash position of the company, authorizing and signing the receipts and payment orders in conformity with the government financial statutes, and the inventory taking of the company safe twice a month in conformity with these regulations.

On the other hand, the financial controller of the company is seen as the right person to contact the government officials in the Ministry of Industry to urge them to pay the salaries of the company employees due to the liquidity problems experienced by the company. During our stay there, the financial controller of the company made two trips to the Ministry of Industry for this purpose. Moreover, we have noticed that the financial controller of the company starts preparing the monthly paysheet at the beginning of the fourth week of the month, doing all the calculations by himself. At the end of the month, it is the financial controller himself who pays the employees their salaries. In fact, at the end of the month the researcher found it terribly difficult to interview the financial controller because of the frequent interruptions by employees and workers asking about when they will receive their salaries. At one time, the financial controller suggested that we move to a different room to continue the interview, and so we did. Being relieved from the frequent interruptions and the embarrassing questions of the

employees, the financial controller of the company made it clear that:

"We will be comfortable here, because no one will know that we are here."

These observations make it clear that there is no sign of accounting reports being submitted to the company management apart from the small sheet of paper which the financial controller used to help him explain the daily cash position to the general manager.

Similarly, the financial controllers' opinion on the percentage of time which their departments spend on the different accounting activities was solicited in the private sector enterprises. Table 7.6 shows the responses of the financial controllers in the private enterprises to this question. This table shows that generally speaking, a significant proportion of the time of the controllership function in the private enterprises is spent on reporting to management in comparison with their counterparts in the public enterprises. This is particularly true in the two textile companies and the first hotel where, by virtue of utilizing the computers in the different accounting activities, financial controllers devote the bulk of their time to preparing different types of accounting reports to different management levels. In the other two food companies and the second hotel where computers are not used, the accountants spend more of their time handling the routine record-keeping activities, although they still devote a significant part of their time to reporting to management compared to the public enterprises.

**Table 7.6: The percentage of time which the Controllership Function spend on different accounting activities in the private enterprises:**

Industry	Companies/ Hotels	% of time which the controllership function spend on the different accounting activities			
		book- keeping	reporting to management	reporting to external govt. bodies	others
Textile Industry	Company 1	20%	40%	20%	20%
	Company 2	30%	30%	15%	25%
Food Industry	Company 1	50%	30%	10%	10%
	Company 2	50%	37%	10%	3%
Hotel Industry	Hotel 1	30%	50%	10%	10%
	Hotel 2	40%	30%	30%	-

Another reason for the fact that accountants in the private enterprises devote much more time to reporting to management than their counterparts in the public sector is the fact that the accountants of the private enterprises spend a small proportion of their time on reporting to the external government bodies. This is mainly because the accountants in the private enterprises do not send any accounting reports to any government body apart from the traditional financial statements which are sent on an annual basis to the Taxation Department to estimate and collect the business profit tax in accordance with the 1925 Companies Act. However, the table shows that the financial controller of the second hotel spends much



more time (30%) in reporting to the external government bodies. This is primarily because, in addition to sending the final accounts, the financial controller of the hotel is required to submit a monthly report on the food sales and calculate the sales tax on the food sales and send it to the Taxation Department. Moreover, according to the regulations of the Bank of Sudan, the financial controller of the hotel is required to compile a monthly report on the number of foreign residents who are supposed to pay in hard currency unless paid by local institutions. This hard currency has to be remitted to the Bank of Sudan at the official rate of Ls2.5 a dollar. Though the first hotel is required to submit the same set of financial reports, nevertheless, the use of the computer in producing some of these reports such as the Productivity Report, reduces the amount of time which the financial controller of the hotel spends on these reports.

Finally, table 7.6 shows that the financial controllers of at least three enterprises, that is, the two textile companies and the first food company, are reported to have spent much more time on the fourth category of other accounting activities compared to the other private enterprises. The financial controllers of these companies attributed this to their efforts to obtain hard currency from the black market which involves personal contacts with the owners of the private exchange shops and the time spent on handling the procedures of opening the letters of credit which involves various government bodies. This finding may suggest that the problems of hard currency in the

country, besides negatively affecting the financial performance of these companies, may distract financial controllers from doing their main job of reporting to management. This conclusion is further supported by the fact that some companies formally recognize the role of the financial controller in obtaining hard currency in his job description together with the other reporting duties. For instance, part of the job description of the financial controller of the first food company, reads that one of the main jobs of the financial controller is "to programme the cash balances of the company in the banks with a view to obtain hard currency and to make a personal effort to provide hard currency from the available resources (namely the private exchange shops) in order to procure the production inputs." It is not surprising, therefore, that this financial controller used to receive and make phone calls from and to the hard currency dealers in the black market and chase them even during our interviews with him. Indeed, the intensity of this problem even affects the management attitudes towards the role of the financial controllers, as will be discussed in Chapter 10.

### 7.3 Managers' Uses of Accounting Data

We have already argued in Chapter 5 that accounting data is normally used for three purposes. These are the score-card, attention-directing and problem-solving uses. It is worth mentioning at this stage, that it is fairly difficult if not impossible, to draw a sharp line between the score-card and the attention-directing uses of accounting data. For instance, we found that while a

general manager may use the budget follow-up report for attention-directing purposes, a middle manager may use the same report for score-card purposes. Moreover, a general manager and/or middle manager may use the budget follow-up report for both score-card and attention-directing purposes. Similar problems were encountered by some researchers who investigated the use of accounting figures, such as Simon et al, 1954 and Saleem, 1981. For this reason, the score-card and attention-directing uses of accounting data will be discussed in one section to avoid unnecessary repetition. Moreover, the number of managers using accounting data for score-card and attention-directing purposes in tables 7.7 and 7.8 is not mutually exclusive.

#### 7.3.1 The Score-Card and Attention-Directing Uses of Accounting Data

Table 7.7 shows the score-card and attention-directing uses of accounting data by the managers of the public enterprises. The fact that only six out of twenty two managers interviewed were reported to have received accounting reports, reduced the potential users of accounting data in the public enterprises. Moreover, the fact that the traditional financial statement is the major accounting report received in almost all the public enterprises and that it is much in arrears, limited its use to the score-card purposes. Therefore, as the six managers are reported to have used the accounting data for score-card purposes, this suggests that the prime use of accounting data in the public enterprises is for score-card purposes, which is no more than the performance evaluation of the overall company or hotel based on the traditional financial statements. Also, when managers of the

manufacturing companies used accounting data for score-card purposes, they tend to believe that most of the factors which affect their performance are outside their control and that it is the responsibility of the branch corporations (the Textile and Food Industries Corporations) to solve these problems. The following statements by the general managers of the manufacturing companies on the use of accounting data for score-card purposes are illustrative.

"You know your position whether you are making profits or incurring losses and the volume and the reasons for these losses or profits from these financial statements. But there are some factors which are outside our control, such as electricity failure, petrol shortage and frequent machine breakdown. In such cases no one can ask you why your accounts show losses."

and that:

"I use the financial statements to know how much losses we incurred at the end of each year. We are not responsible for these losses. If a machine stopped due to the lack of spare parts, I will only be responsible if I did not notify the Corporation (Textile Corporation) about this problem. I will not be responsible either if there is no electricity, because this is a national problem which is not confined to our factory."

Table 7.7 shows also that the attention-directing use of accounting data is almost lacking in the public enterprises. This could be attributed to the fact that the budget follow-up (performance) report, which could signal to managers that there is a need for investigation and managerial action (Welsch, 1971), is lacking in the public sector where the budget control is the responsibility of the financial controller. Therefore, it is not surprising to find that only the two general managers of the hotels used accounting data for attention-directing purposes. Based on the tentative standards of the food recipes established by the Hotels and Tourism Corporation, the two

managers investigate the contents of the consumption of provision report seriously. Most important, as the Technical Audit and Inspection Unit of the Corporation reviews the contents of this report on a monthly basis, the two managers expect enquiries from the Corporation on any significant deviations from these standards. The following statements of the two managers illustrate the attention-directing uses of this accounting report.

"I compare the actual revenues with the actual expenditures and investigate the reasons if the actual expenditures are higher than expected."

"The purpose of these reports is that you know the revenues which you made during the month. We also have to know the reasons if these revenues are lower. We also send these reports to the Corporation (the Hotels and Tourism Corporation) to subject them to the technical audit and to make sure that the ingredients of the food recipes are reasonable."

Our investigations in the public enterprises, on the other hand, showed that, in the absence of frequent and formal accounting data, managers tend to rely on direct and verbal communication to generate information which is used for attention-directing purposes. One of these informal means is the frequent and direct visits and observations by managers, particularly in the manufacturing enterprises. However, the most important informal means of getting informed about the operating problems which need attention-directing, is the frequent meetings between the general managers of these enterprises and the operating middle managers. Therefore, top managers relied heavily on the information passed during these meetings to acquaint themselves with any operating problems. Thus, in the first food company, where we stayed for more than one month, there was hardly any day which passed without the production

manager entering the general manager's office with a small sheet of paper, showing the production figures for the previous day, together with a verbal explanation about the problems encountered. In the second food company, a five minute break meeting between the general manager and his subordinates is held on a daily basis. In the two hotels, on the other hand, in addition to the frequent meetings with their subordinates to obtain information about operating problems, managers of the two hotels rely on the complaints of the residents to investigate any problems.

To illustrate how managers generate their own information for attention-directing purposes in the public enterprises, we cite the following example from the first food company in which we stayed for more than one month.

Table 7.7: The score-card and attention-directing uses of accounting data in the public enterprises:

Manufacturing/Hotel Sectors	Levels of Management	No. of Managers Interviewed	Do you receive any accounting reports?		Managers' Uses of Accounting Data	
			Yes	No	Score-Card	Attention Directing
Manufacturing Sector	Top Management	7	4	3	4	-
	Middle Management	7	-	7	-	-
Hotel Sector	Top Management	4	2	2	2	2
	Middle Management	4	-	4	-	-

At one time the stores manager of the company contacted the financial controller of the company, asking him to procure raw materials, since the company was about to run short of stocks. Because it is usual that the purchases of raw materials should last for four months, the financial controller referred the matter to the general manager of the company, who in turn set up an investigation committee. The investigation committee found that huge quantities of milk powder and glucose had been stolen by some workers in the production department. A board of discipline was immediately set up in the company and these workers were sacked from the company. This incident suggests that in the absence of the frequent accounting data, managers of the public enterprises tend to rely completely on their informal means of generating information for attention-directing purposes. These observations are further confirmed by the following statements of managers. Two managers in the manufacturing companies argued that:

"If there is any problem in the plant, the technical manager will send me a report."

"The technical division manager notifies me of any problem in the plant directly and orally. This is in addition to the frequent visits to the factory, and even my office is attached to the plant."

Similar statements are given by the hotels general managers.

"I know the problems directly and instantly through the department managers."

and that:

"We know about any problem from the oral reports by the managers of the departments and from the complaints of residents. We are very keen to solve these problems to ensure the quality of our services."

In the private enterprises, on the other hand, the score-card and attention-directing uses of accounting data are shown on table 7.8. The table shows that about eighteen managers used accounting data for score-card purposes and about twelve managers used the accounting data for attention-directing purposes. These findings suggest that while using accounting data for attention-directing purposes is almost lacking in the public enterprises, it is common in the private enterprises. One direct reason for this is the objectives of budgeting in the public and private enterprises. Thus, in the public enterprises the budget is mainly used for expenditure control which is the responsibility of the financial controller as we have already explained, whereas the budget in the private enterprises is used for control and performance evaluation purposes, the responsibility for which rests with the managers at different levels. Therefore, as all managers are reported to have participated in the budgeting process, (as will be explained in detail in the next chapter) and as most managers received budget follow-up reports on a monthly basis, it would seem that the budget in the private enterprises is used as a standard against which performance is measured and discrepancies investigated. Simon et al (1954), referring to the importance of acceptance of standards as a prerequisite for the score-card and attention-directing uses of accounting data, argue that:

"When accounting data are used for score-card or for attention-directing purposes, a comparison of the actual data with some kind of standard or norm is always involved. This need not be a deliberately designed and established standard of the sort involved in a standard cost system, but may be any figure that is regarded as 'a normal', 'expected', or 'satisfactory' value for the figure in question."



Table 7.8: The score-card and attention-directing uses of accounting data in the private enterprises:

Manufacturing/ Hotel Sectors	Levels of Management	No. of Managers Interviewed	Do you receive any accounting reports?		Managers' uses of Accounting Data	
			Yes	No	Score- Card	Attention- Directing
Manufacturing Sector	Top Management	7	7	-	7	5
	Middle Management	8	6	2	6	2
Hotel Sector	Top Management	3	3	-	3	3
	Middle Management	4	2	2	2	2

The following statements illustrate the score-card and attention-directing uses of accounting data.

"We use these accounting reports to take corrective measures if there are significant budget variances. We also know how well the company is doing."

"These reports show you the general position of the factory and if there is any deviation in the monthly budget forecasts, we have to justify it."

and that:

"I am a technical man and I know the actual expenditure of the raw materials and I compare it with the different dishes made within the month and I investigate the reasons for any variances."

However, like their counterparts in the public sector enterprises and with the exception of the first textile company, all managers of the private enterprises relied on the same informal means to generate information for attention-directing purposes with a view to becoming informed about the operating problems in their companies and hotels. To

avoid unnecessary repetition, we will not discuss these informal means of communication. Additionally, managers in the first (Hilton) hotel, used a daily book, known as the log book, which briefly states any operating problems which occurred yesterday. Unlike the case of the public enterprises where frequent accounting reports are almost lacking, managers in the private enterprises attributed reliance on the informal information systems to the fact that the periodical accounting reports which they receive are not frequent enough to reflect the operating problems which take place in their organizations every now and then and which need prompt action. Therefore it would seem that managers are very keen to know about any problem as soon as it arises rather than waiting for the accounting reports sometime later. The following statements by managers of the manufacturing enterprises are illustrative.

"I know the operating problems either through the reports from my subordinates, through direct verbal communication or through direct observation. I don't depend on accounting reports which I receive on a monthly basis because I have to take immediate action."

"Almost I know any problem as soon as it happens, because I normally make two or three tours a day to the factory, and we have a daily meeting with the staff. I do not wait for this report (cost report) to inform me about such problems 24 hours later."

"You know how much you are supposed to produce and how much you actually produced and the reasons for this. You cannot wait for three months for these financial reports to know about any problems, because I visit these units on a daily basis and I see the problems for myself. These financial reports show you only the impact of these problems on the performance of the company."

Similar statements are given by the private hotel managers.

"I do not sit in my office. I make surprise checks and visit all the departments to see for myself how they are doing. In the stores department I have to make sure that the raw materials have arrived and check their quality."

Also I check the attendance book to see the number of absentees. I also visit the housekeeping department to check how the cleaning of the rooms is going on. I personally supervise the restaurant."

and that:

"These accounting reports do not list cooker stoppage and they only tell you about what happened yesterday. I am very concerned about what happens today."

In the first textile company, on the other hand, our investigations showed that managers of the company relied exclusively on the daily accounting reports, that is, the cost report, to direct their attention to the operating problems in the company. The cost report shows the costs of production, the production figures and the operating problems for the previous day. The report explains the operating problems by means of symbols. For instance, the symbol ef refers to electricity failure, and the symbol mb stands for machine breakdown. One reason which could justify the management reliance on accounting data to direct attention to the operating problems is that the company is the largest (about 8,000 persons) one in the sample, which could make it difficult for managers to acquaint themselves with the operating problems through direct visits and observations.

### 7.3.2 The Problem-Solving Uses of Accounting Data:

The third use of accounting data is for problem-solving purposes, where accounting information is used by management to make decisions. Killough and Leninger (1984) identify four steps in the decision making process:

1. First, the decision-making process starts with the

successful identification of the problem or the decision area.

2. Second, once the problem is identified, then the next step is to identify the alternative solutions to the problem. This step comprises the identification of the relevant cost and revenue information associated with each alternative.
3. Third, the successful quantitative and qualitative evaluation of the different alternative solutions by the company's management team, and,
4. The fourth and final step is the selection of the best alternative solution by the company's management team.

Therefore, in line with the focus of this chapter, the objectives of the discussion of the problem-solving uses of accounting data in the public and private enterprises are two-fold. First, to investigate the role of the controller-ship function in preparing special accounting reports to help management make decisions. Second, to investigate whether or not managers actually use accounting data to make these decisions. Very specifically and with reference to the decision-making process, we would address the following two questions:

1. Do the financial controllers of the public and private enterprises prepare special accounting reports to help management make the major decisions in these organizations? (Step 2 above).
2. Does the management of the public and private enterprises use these special accounting reports in making these decisions? (Steps 3 and 4).

These two questions are to be pursued with respect to three major decision areas, that is, the production (service)-mix decision, the pricing decision and the investment decision.

#### 7.3.2.1 The Production (Service)-Mix Decision

The production (service)-mix decision presents a managerial problem for most of the firms which are of a multi-product (service) nature. For this reason, all the cost accounting text books discuss in detail some techniques such as linear programming, which could help management resolve this problem. Killough and Leninger (1983) argue in this respect that:

"The oil refining, textile, chemical and agricultural industries are some of the areas in which linear programming is widely used. Though outputs from an oil refinery can be varied, the objective is to maximize profits subject to market, inventory and production constraints."

In the following lines we discuss how the production(service) mix problem poses itself in the public and private enterprises and how it is dealt with, as all the participating companies and hotels produce a variety of products (services).

##### A. The Production(Service)-Mix in The Public Enterprises

The production-mix decision in the public manufacturing companies, is made in the Branch Corporations headquarters, that is, in the Public Corporation for Spinning and Weaving and the Food Industries Corporation. At the headquarters of these corporations, the production-mix decision is made by what is called the Production Councils. These Production Councils normally consist of the general managers of these corporations, the managers of the different administrations (departments) within these branch corporations, and the general managers of the production units, that is, the public textile and food companies. The determination of the

production-mix, that is, the different types of products and the quantities to be produced, by the Production Councils constitutes two steps. First, the Production Councils in these Corporations normally meet four months ahead of the beginning of the financial year in July, because of the importance of the production decision for the preparation of the master budgets of these enterprises. The types and amounts of products are normally based on the 'Guaranteed Efficiency' or the 'Expected Capacity' which has been agreed upon between the Department of Planning (of the Ministry of Finance) and the foreign companies which erected these factories. This has been justified mainly on the basis that these factories were originally established with a view to reaching self-sufficiency in the various food and textile products. However, practically speaking, the final types and amounts of products are based on bargaining between these Production Councils and the general managers of these companies. Thus, the final production types and quantities are much lower than the expected capacity, for instance 30% in the two textile mills. This is obviously because the general managers of the production units are keen to direct the attentions of the Production Councils to the problems that face production which will be discussed shortly in connection with the private manufacturing companies.

Being more acquainted with these problems as well, the Production Councils acknowledge these problems and adjust the production-mix accordingly. Moreover, even this approved production-mix is only a tentative one, and its implementation depends largely on the intensity of these problems.

Once approved by these Production Councils, the production mix acts as the objectives of these companies and is subject to monthly review by the Technical Administrations in the Corporations headquarters. Consequently, the financial controllers of these production units send monthly production reports to these Technical Administrations, showing the actual and the budgeted production figures together with the problems that encountered the production during the month. It is quite evident, therefore, that neither the financial controllers in these companies prepared special accounting reports nor the management used accounting information to make the production-mix decision. The reasons for this are two-fold. First, this could be attributed basically to the fact that this decision is made outside the organizations level, that is, the decision is made at the corporate level. Second, it could be attributed to the fact that managers of the public enterprises are production-oriented rather than profit-oriented, as the discussion on pricing practices and as the discussion on organizational goals in the public enterprises will show in the next chapters.

The service-mix of the public hotels, as well as the private hotels, on the other hand, could be classified into the following four categories:

1. The provision of accommodation. The demand for hotel accommodation in Sudan is mainly dependent on foreign businessmen, rather than tourists, because the tourism industry in Sudan is almost lacking. According to one general manager of these hotels, the Sudanese nationals are very reluctant to look for hotel accommodation as this is perceived as shameful, and for this reason, they stay with

relatives especially when they travel to Khartoum.

2. The provision of food to the occupants and visitors.
3. The supply of soft drinks only, to the exclusion of alcoholic drinks.
4. The provision of other secondary services such as conference, cinema and sports facilities.

It is worth mentioning that the provision of food and soft drinks, that is, the second and the third services, are mainly associated with the number of occupants for whom accommodation services (the first service) are provided. After all, this seems to be typical of the practice in the hotel industry any where (Steel, 1975). Moreover, the provision of food and beverages, cinema and the sports facilities are considered by the hotel managers as an integral part of the main service, that is, provision of accommodation. One of the general managers of the two hotels stated in this respect that:

"All the different services which we render to our residents are profitable and we don't need to conduct a special study to concentrate on some of them. Moreover, the provision of these services is a must even if you have few residents."

Therefore, the major decision area which managers have to address on the service-mix problem is to decide on the level of occupancy rate or the expected number of occupants per month and annum. Our investigations in the two hotels showed that top managers do not ask for special accounting studies to help them make this decision, and consequently, the financial controllers of the two hotels are not involved in this decision in any way. However, the top managers of the two hotels made it clear that they rely heavily on the accounting records to estimate the number of occupants for



the next year. All the top managers admitted that they ask the financial controllers to provide them with the actual number of residents for the last year. Having received these figures, the top managers take into account the political and economic prospects that might affect the number of foreign businessmen coming to the country, and then they decide on the number of expected residents for the next year. The following statements by the two top managers on the role of the financial controllers in this decision are suggestive.

"We estimate the number of occupants on the basis of the actual figures for the previous year and we take into consideration the possible political changes and then we add 5% for any year. There are no statistics on the number of tourists to help us estimate the number of occupants."

and that:

"The decision to estimate the number of occupants concerns me as a general manager. The financial controller has no idea about it and he only gives me the actual figure for the previous year."

Once estimated by the general managers of the two hotels, the level of occupancy of the public hotels is then subject to the approval of the Budget Committee of the Hotels and Tourism Corporation, which in most cases accepts the estimates of the general managers. The approved number of occupants is then incorporated in what is known as the 'Corporations's Production Programme' for the next financial year, which is also connected with its production capacity, that is, the number of rooms and beds of all the corporation's operating units.

#### B. The Production (Service)-Mix in The Private Enterprises

The role of the financial controllers and the managers' use of accounting data in the private manufacturing companies could be discussed in terms of whether the company is an

import-substitution one or producing for export. In the import substitution companies, that is, the first textile company and the two food companies, the production-mix decision is the responsibility of the Production Department. As the production-mix decision is very important to estimate the budget, the production manager usually decides on the amounts and types of products at the beginning of the financial year. As we have already argued in the production budgeting, the sole constraint is the available production capacity which could be achieved within the problems facing the industries. The second category of export-orientated companies includes the second textile company. This company is operating in a competitive market where it competes with other textile factories in other countries which supply yarn counts to the European Weaving companies. In this company the production-mix decision is the responsibility of the marketing manager. When asked about his role in the decision, the financial controller of the company stated that:

"This is basically a technical question which the marketing department deals with. It is not a financial one."

However, it is worth mentioning that the production-mix decision in the private manufacturing companies, as well as the public manufacturing companies, even though it does not involve any special accounting studies, is not an easy ride at all. This is because the determination and the implementation of the production-mix decision requires a rigorous consideration of the problems which face the manufacturing sector in Sudan. We have already seen how the intensity of

these problems adversely affect the performance of these companies.

These problems are basically associated with the developing nature of the Sudanese economy. These problems could be summed up in the following two problems.

1. Shortage of Energy Supplies. The electricity supplies in the country are insufficient to meet the needs of manufacturing industry. Therefore, frequent electricity cuts are quite common throughout the year. As the electricity energy is generated from water dams, the problem of the electricity supplies is even worse during the summer when the water level is very low and the generating capacity of the dams is hampered by the huge clay. The two private food companies tried to solve this problem through obtaining their own electricity generators, and they are better off than the other companies. Nevertheless, these companies faced the problems of the huge shortage of the petrol necessary to operate these electricity generators. As a result of this electricity shortage the two textile companies in the private sector, as well as the public manufacturing companies are operating well below full capacity.

2. The Shortage of Hard Currency. The Sudanese economy, which is a one-cash crop economy, suffers acute shortage of hard currency, serious deficits in the balance of payments and huge foreign debts. This problem made it very difficult if not impossible, for the manufacturing companies to obtain enough raw materials and spare parts to ensure smooth production. Moreover, the fact that the government controls both the sources of energy and hard currency has intensified these problems to the extent that they are totally beyond

the control of these organizations. Accordingly, almost all the managers of the manufacturing companies in both sectors maintain negative attitudes towards solving these problems on the basis that 'they cannot do anything about them'.

In conclusion to this discussion, there is no evidence that the financial controllers of the private manufacturing companies prepare special accounting studies to help management make the production-mix decision. In the import-substitution companies this could be attributed to the existence of the sellers' market, a situation where the marketing of goods is no longer a constraint as in the developed economies. Another possible reason could be the price control by government, according to which the maximum profit margin for any locally-produced product is 15% (more on the existence of the sellers' market in Sudan and the price control by government is to come up in Chapter 8.). Thus, according to these reasons the idea of diversifying the products to increase (maximize) profits as suggested by the Western Cost accounting books, may not be viable. By the same token, the export-orientated company, that is, the second textile company, though operating in a highly competitive market, does not address the problem of the production-mix with a view to increasing profits. The reason is that the prices of this company are much lower than the costs of production, as we will discuss shortly.

In the private hotels, on the other hand, the service-mix is identical to that in the public sector hotels. Also the managers of the hotels made it clear that the service-mix

which they provide to the residents is dependent on the potential occupants. The following statements are suggestive.

"All these services have to be provided together. If you provide the occupant with a well-furnished room and you do not provide him with delicious food and excellent telephone and telex system, he will be upset. The whole thing is integrated."

"There is no choice as such. If you got only one resident, then you have to keep your restaurant open. You cannot tell the resident to have his meal elsewhere and then return to his room."

Thus, the problem with deciding on the service-mix in the private hotels is centred around the estimation of the number of residents. Out of the two hotels, only the first hotel (KRT. Hilton) makes this decision. In this hotel, this decision is made by a committee, the Marketing Committee, which consists mainly of the main offices (i.e. departments) of the hotel, including the Accounting Office. The role of the committee is to discuss and agree on the level of occupancy as proposed by the Marketing Office in the hotel. Our investigations suggested that the Committee's agreement is only 'a rubber stamp'. Accordingly, the decision on the number of occupants is a pure marketing decision. According to the Chief Marketing Officer, the number of expected occupants for any year, is mainly determined on the basis of the trend of occupants for the last three years. As this data originates in the Marketing Office, they just consider their records for the last three years.

In addition to the three-year trend, the Marketing Office has to adjust its estimation and take into consideration the following factors.

1. The Market Share of the Other Hotels. The Marketing

Office has to consider the market share of the other foreign-owned and/or foreign-managed hotels operating in Sudan, which are basically four-star hotels and provide the same quality of services. These are basically the Meridien Hotel (a French-owned and managed hotel) and the Friendship Palace Hotel (a public sector hotel managed by a South Korean hotel enterprise). Bearing in mind that almost all the occupants of the hotel are foreigners, the hotel faces fierce competition over the already declining number of foreign businessmen.

## 2. The Political and Economic Changes in the Country.

According to the Chief Marketing Officer, rigorous consideration has to be given to the everchanging political and economic environment of the country and simulate its impact on the foreign investment and visitors. He then cited the following political events which left the hotel 25% behind its original forecast last year.

- The imposition of the Sharia (Islamic Law) in September 1983, and its long-term negative effect on the tiny fraction of tourists following the ban of alcoholic drinks and pork and the call for separate swimming pool and other leisure facilities for males and females,
- The popular uprising in April 1985 and the concern of foreign investors about whether the new government is going to be pro-western or pro-eastern,
- The advice from the US Secretary of State to American subjects to avoid Khartoum, as it is suspected to be full of Libyan terrorists, and
- The industrial action (a 4 day strike) by the engineering technicians at Khartoum Airport. Once the Marketing Committee

have agreed on the number of occupants as proposed by the Marketing Office, it is then sent to the head office of the Hilton International Company in New York for final approval, which is again merely a formality. Therefore, as the decision is a pure marketing one, there is no evidence that the hotel comptroller prepared any special accounting report in this decision and that management used accounting information to make this decision.

In the second hotel, a family-owned and managed one, no decision is made in advance of the potential number of occupants. Instead the hotel provides accommodation and the other services upon request. When asked about the reason for this, the owner of the hotel argued that:

"We cannot determine the number of residents in our hotel even for one week because the country is not a tourist one, and the whole thing is a matter of supply and demand."

#### 7.3.2.2 The Pricing Decision

One of the major decision areas in which financial controllers and the accounting data could play a vital role is the price-setting decision for the different products (services). Fregmen (1976) states that:

"The accountant as a planner, compiler and analyst of financial data, is importantly involved in the price-setting decision. Financial data, and more significantly, cost data, are fundamental elements in the price-setting process".

Therefore, in this section, we discuss the role of the financial controller and accounting data in the price-setting decision in both the private and the public sector enterprises.

#### A. The Price-Setting Decision in The Public Sector Enterprises

Our first hand impression on the price-setting decision in the public manufacturing companies is that it was

originated and made outside the organization's level.

This conclusion is based on the following statements by the financial controllers of the public manufacturing companies.

"We can calculate the cost per unit from the actual expenditure of the year and therefore we do not need a cost accounting system. We receive the fixed price as an order from the Public Corporation (for Spinning and Weaving)."

"The price determination is a central responsibility of the Corporation (of Textile) and no manager in the production units is authorized to fix prices. The headquarters is responsible to follow-up the cost changes and it supervises the special cost studies necessary to set up these prices."

and that:

"The role of these factories in this decision is only an advisory one, because they only implement a policy formulated by the Corporation (Food Industries Corporation)."

Therefore, for further details, the researcher has to resort to the two branch corporations which manage the public food and textile companies, that is, the Public Corporation for Spinning and Weaving and the Food Industries Corporation. At the Corporation's level, the price-setting decision is made by a committee known as the Price Committee. The Price Committee is established in accordance with the Government Financial Statutes, and it consists of the General Directors, the Sales Managers, and the Financial Managers of these Corporations. For further details, see the Government Financial Statutes in Appendix B. According to the financial controllers of these corporations the price-setting process follows four major steps. In the first step, the Price Committee compiles the necessary cost information which enables it to propose prices to the Industrial Costs and Pricing Administration of the Ministry



of Industry. The process of preparing the cost information, however, is different in the textile and food companies.

In the textile industry, the Price Committee of the Public Corporation for Spinning and Weaving requests the production units to fill in a questionnaire which contains all the cost elements. The contents of the questionnaire are identical to the cost and unit price calculations shown on table 7.9. In practice, however, only two production units actually fill in this questionnaire, which includes the first textile company and another textile mill which is not included in the sample. Both companies have got cost accounting systems introduced by the Efficiency Improvement Unit for the Public Industrial Sector. Upon receiving the cost information from these production units, the Price Committee reviews this information, particularly the cost of raw materials. The financial manager of the Corporation attributed this to the fact that the Corporation headquarters is responsible for obtaining the raw materials and got all the cost data thereof. He stated:

"Because they (financial controllers of the production units) estimate some cost items and particularly the raw materials. We know the actual costs because these purchases are centralized in the Corporation headquarters."

The Price Committee in the Food Industries Corporation estimates the production costs of the different products on the basis of the budgeted expenses associated with these products, that is, the budget expenditures in Chapter One and Two. These include the budgeted costs of raw materials which are directly traceable to the product, and the share of the product from the budgeted operating expenses and the administrative expenses for the whole financial year, all being an average based on the number of the products. The Price Committees

of these corporations compile data whenever there is a sharp cost increase, especially in raw materials. See table 7.10.

In the second step and on the basis of this cost information, the Price Committees in these corporations then calculate the cost per unit and the proposed price per unit. However, it is worth mentioning that in the case of the textile companies the proposed price per unit is much lower than the cost per unit as shown on table 7.9. When asked about the reasons for this, the financial manager of the Textile Corporation made it clear that as Damoria (one type of the textiles) is a popular commodity and is widely consumed by the vast majority of the Sudanese people, it should reach the consumer with a reasonable price even if the Corporation is to sustain huge losses. He stated that:

"This is because Damoria is a popular and strategic commodity. Sometimes we ask for a price which contains no profit element, and this is why these factories incurred huge losses."

In the third step, and on the basis of the proposed unit prices, the Price Committees in these Corporations negotiate these proposed prices with the Industrial Costs and Pricing Administration of the Ministry of Industry, according to the policies and procedures of the latter. For further details on the Price Control by Government, see Chapter 8. Finally, once the prices of the different textiles and sweets are agreed upon between the Price Committees and the Industrial Costs and Pricing Administration, the former then notify the sales departments in the production units with the approved prices to abide to.

Table 7.9 The Public Corporation for Spinning and Weaving

The Cost Per Yard of Damoria as Calculated by  
the Price Committee\*

1. Raw Materials:	Ls	Ls
*Cost of ton of yarn count	2,200.000	
*Cost of transport of yarn count ton	100.000	
*Total		2,300.000
2. Fuel:		
*Diesoline 350 gallons x Ls.745	260.000	
*Oil 3½ gallons x 3.597	012.589	
*Boiler ½ gallon x 3.597	.599	
*Total		273.998
3. Secondary Materials:		
*Animal fat (A)	012.894	
*Animal fat (B)	017.963	
*Machine Lubricants	002,424	
*Blue	000.400	
*Total		033.681
4. Salaries & Wages:		
*Administration (Average)	21.024	
*Technical Division (Average)	36.260	
*Operating	288.550	
*Others (guards,...etc.)	007.244	
*Workers' transport	011.690	
*Total		364.768
5. Depreciation:		
*Buildings	038.226	
*Equipment	131.324	
*Vehicles	2.952	
*Furniture	.127	
*Total		172.629
6. Interest on Capital Invested		216.000
7. Overall Total Cost Needed to Process A Ton of Yarn Count		3,361.016
8. Cost Per Yard of Damoria = $\frac{\text{Ls}3,361.016}{7666}$		= 438,43 millimmes

(N.B. A ton of yarn count produces 7666 yards of Damoria)

Brand Damoria	Current Price Ls.312/yard	Current Cost Ls.438/yard	Proposed Price Ls.410/yard
According to the files of the corporation the approved price is Ls.410 per yard of Damoria.			
*Source: PCSW/2/26/Secret, Marketing of the Products of The Company.			

Once again it is noticed that the approved prices of some sweet products are much lower than the proposed prices as shown on Table 7.10. When asked about the reasons, the financial manager of the Food Industries Corporation pointed out two major reasons. First, he claimed that the Corporation is not supposed to charge higher prices so as to reduce the cost of living to the public as its products are widely consumed by the public. He stated that:

"As a public corporation, we are not supposed to charge the consumer with higher prices and thereby increase the people's suffering, because we are not inclined to making profits like the private sector."

The second reason is that these factories strictly follow the government purchases regulations (See Appendix B) in obtaining their purchases of raw materials. For instance, as the government factories follow these regulations, the prices of Sesame increase dramatically between the time these companies advertise tenders and the time the successful bidder is selected. Referring to this hindering routine the financial controller of the corporation argued:

"You have to advertise in the newspapers, wait for more bidders, and you have to form a committee to select the successful bidder. All the factories of the government should follow this procedure. This is a hindering routine, and that is why the government decided to change these factories into private companies."

This in turn increases the cost of production in the government-owned companies. Therefore, when they apply for prices their proposals are turned down by the Industrial Costs and Pricing Administration on the basis that they are higher than the prices suggested by the private enterprises. The financial manager of the Food Corporation argued in this respect that:

"We compile the cost information and send it to

the Pricing Administration. They usually accept the costs of the private sector because they know that the production costs of the public sector are high because there is disguised unemployment and they are not operated for profits."

When asked about why they prepare such cost studies even though they are not accepted by the Industrial Costs and Pricing Administration, the financial manager of the Food Industries Corporation made it clear that they only want to justify the huge losses which their production units incur. He said:

"To show the Ministry (of Industry) the reasons for the substantial losses in these factories."

Table 7.10 The Food Industries Corporation\*

The Costs Associated with producing a ton of Jelly

(Ton of Jelly = 247 packs)

1. Raw Materials:	Unit x Value (Ls)	Ls
* sugar	815 x .625 = 0,509.375	
* gelatine	150 x 8.000 = 1,200.000	
* lemon salt	29 x 3.500 = 0,101.500	
* essence	3 $\frac{1}{2}$ x 40.000 = 0,140.000	
* colour	2 $\frac{1}{2}$ x 40.000 = 0,100.000	
* carton	247 x 1.000 = 0,247.000	
* packs	11,110 x 0.200 = 2,223.000	
* total cost		4,520.875
5% wastage		0,226.043
2. share of product from operating expenses		0,797.000
3. share of product from Administrative Expenses		0,994.300
Overall Total		6,538.218
+10% profit margin		0,653.822
Overall Total		7,192.040
Proposed price per pack = $\frac{7,192.040}{247} = 29.120$		

(N.B. A ton of Jelly usually is packed in 247 packs)

The approved price by the Industrial Costs and Pricing Administration is Ls 20.763 per pack of Jelly.

\*(source: Books and Files of the Food Industries Corporation, 10-F-8 (Secret), The Prices.)

However, at the organization's level, our investigations revealed that the general managers of the two food companies tried to increase the approved price by adding a certain percentage as "storage fees" to minimize the difference between the proposed and the approved price, making use of

the loose price control by government at the regional level. One general manager of these companies justified this on the basis that:

"you see we are breaking the law and we impose the storage fees with a view to absorb the difference between the price we suggest and the price at which we are supposed to sell according to the instructions of the Pricing Administration."

Following the detailed discussion on the pricing practices in the public manufacturing companies, one could reach the following conclusions. First, it is quite evident that neither the financial controllers of the public manufacturing companies prepared special accounting reports to help make the pricing decision, nor the management of these companies used the accounting data for this purpose. This is basically due to the fact that the pricing decision is made outside the organizations's level and is completely controlled by the Branch Corporations (for further details, see Chapter 8) by virtue of the Government Financial Statute. Even at the corporation's level, the price-setting process is a haphazard process and no serious attempt was made to relate the exact costs of production to the products at the different stages of production. At the production units level, there is complete confusion on the actual costs of products and the soundness of the pricing policy determined by the branch corporations. The contradictory responses of the general manager, the deputy general manager and the financial controller of the second textile company is a good case in point. The general manager of this company, when interviewed on the pricing decision, told the researcher that he was about to ask the Public Textile Corporation for price increases. When asked about the reasons for such an application, he responded that the wholesalers enjoyed high

profits because of the significant difference between the price which the factory charged the wholesalers and the price which the wholesalers charged the retailers, which he said amounted to Ls 800 per Damoria bale. On the other hand, at one time the researcher found the deputy general manager of the company doing some calculations. When we started discussing the pricing decision, he told the researcher that the price charged by the factory is too high and should be reduced, according to the calculations which he made. He went on to argue that:

"We are unfair to the Sudanese citizen."

Finally, we asked the financial controller of the company about the actual costs of production of a bale of Damoria. He stated:

"I don't know exactly how much a bale of Damoria costs us but we do some rough calculations."

Finally, another conclusion on the pricing decision in the public manufacturing companies concerns the objectives of the pricing practices. We have seen that the prices charged by these companies are much lower than the actual costs of production and they are meant to reduce the cost of living to the public rather than increase profits. Therefore, one could conclude that the objectives of the pricing practices in the public manufacturing companies are heavily geared to pursue political and social goals rather than commercial goals. To achieve this goal, these manufacturing companies sustained huge losses as we have already discussed. Indeed, it would be almost impossible to discuss the performance of the Sudanese public enterprises without referring to the pricing practices. Paul (1983), for

instance, referring to the pricing practices in the public sugar factories (to which we referred in the first case study), concludes that:

"Any study of the performance of public enterprises in the Sudan will sooner or later have to deal with the problem of pricing. The reason is that the prices used for transactions in the public sector are often set in such a way that the profit or loss figures of individual public corporations cannot be used as an indicator of their performance, nor as a basis for future investment or production decisions."

In line with the ambiguity towards the commercial goals of public enterprises anywhere, it would seem that the under-pricing practices are not unique to the Sudanese public enterprises and are typical of the public enterprises in the developed as well as the developing countries alike. Polanyi (1986), referring to the under-pricing practices in the nationalized British railways, states that:

"Evidence that inefficiency has been due to inadequate concentration on commercial objectives is seen in the under-pricing of railway services."

Similarly, Garner (1983), referring to the pricing practices in the Thai public enterprises, argues that:

"The Thai government is not the only government that has prevented price increases that were economically indispensable, but cancelling tariff increases in loss-making public enterprises conforms at this juncture to the pattern of using public enterprise to sustain the regime rather than to promote the public interest."

In the public sector hotels, on the other hand, the determination of the hotel tariff or the room rates is the prime responsibility of the Budget Committee of the Hotels and Tourism Corporation which manages the public hotels. The Budget Committee consists of the main departments of the Corporation and is presided over by the assistant general manager for the Financial Affairs of the Corporation. The determination of the room rates in the public hotels follows



three steps. First, the public hotels normally submit their budget estimates to the Budget Committee of the Corporation a long time before the beginning of the financial year in July, using the same room rates as the previous year to develop their budgets. In the second step, the Budget Committee then consolidates all the budget proposals of the individual public hotels into an overall budget for all the Corporation, and the consolidated budget shows either deficits or surpluses.

Finally, depending on the surplus or deficit shown by the overall budget, the idea of maintaining or increasing the previous hotel tariff arises. If the overall budget shows deficits, then the hotel tariffs are to be increased in the new financial year to the extent that the Corporation, being a service sector, finances its operations and contributes to the public treasury by generating enough budget surpluses and paying the interest on the capital invested in the public hotels. Even in the Budget Committee the level of increase in the hotel tariff is a trial and error process till this objective is achieved. On the other hand, if the budget of the Corporation shows sufficient surpluses to finance the operations of the Corporation and enables it to meet its national obligations, then the previous hotel tariffs are to be maintained for the new financial year. In addition to this, the Budget Committee takes into consideration the hotel classification and the competitive room rates prevailing in the private hotels. The assistant General Manager for the Financial Affairs of the Corporation, referring to the basis of fixing the room rates, made it clear that:

"If we (the Budget Committee) want to increase our revenue by a certain rate, then we increase the room rates of our hotels by the same rate, and therefore the tariff increase synchronizes with the beginning of the financial year. Also, if we feel that our budget shows deficit, we also increase prices, because our budget should not show deficits."

Unlike the private hotels, the Budget Committee is not inclined to increasing the room rates unless there is a budget deficit, and even so, the Budget Committee is not inclined to charge higher room rates, as it is not primarily profit-motivated. The assistant General Manager for the Financial Affairs of the Corporation, stated in this respect that:

"We are very cautious on the issue of the tariff increases, because we are not like the private hotels which work on a pure commercial basis. We have obligations towards developing tourism in the country."

Once the need to increase the room rates is recognized, the Budget Committee then sends the proposed hotel tariff to the chairman of the Board of Directors of the Hotels and Tourism Corporation for final approval. Upon approval of the proposed hotel tariff, the Budget Committee then notifies all the publicly-owned hotels to use the approved rates for the new financial year. Therefore, as the hotel tariff is exclusively controlled by the Hotels and Tourism Corporation, it is not surprising to find that the financial controllers of the publicly-owned hotels do not prepare any special accounting studies to help management make this decision, and consequently managers do not use accounting data for this purpose.

B. The Price-Setting Decision in The Private Enterprises

In the private manufacturing companies, our investigations showed that the financial controllers of the three import

substitution companies, that is, all the manufacturing companies excluding the second textile company, are deeply involved in preparing and explaining cost information on which the management teams in these companies rely heavily to increase the prices of their final products. Therefore, upon sharp increases in the costs of production, which are mainly attributed either to the frequent official devaluation of the Sudanese pound with respect to the US dollar or the increase of the black market price of the dollar, the cost departments in these companies prepare cost data showing the new cost per unit for the different products. The financial controllers of these companies then report such sharp cost increases to the management committees in these companies which decide on the price increases. The management committees normally consist of the general managers, the vice general managers, the sales managers, the production managers and the financial controllers of these companies. Though the decision to apply for an increase in the current prices of products is the collective responsibility of these committees, it is the financial controllers' responsibility to provide the necessary cost information which enables these committees to claim a price increase. When the financial controllers were asked about their role in these committees, the following responses are illustrative. All the companies applied the cost-plus method to fix their prices.

"The preparation of the costs is the responsibility of the financial manager and I do all the calculations."

and that:

"My responsibility is to compile the cost of production information".

Based on the cost information provided by the financial controllers, these management committees then decide on the required price increases and the new proposed unit prices. It is then the responsibility of the financial controllers of these companies to submit the application for the price increases to the Industrial Costs and Pricing Administration, accompanied by the cost information. Furthermore, it is the responsibility of the financial controllers to explain and defend the cost information and produce the necessary documents when the Industrial Costs and Pricing Administration investigates the accounting records of these companies according to its policies and procedures. For further details on price control by the government see Chapter 8.

Therefore, the fact that all the import substitution companies should provide cost information according to the requirements of the Industrial Costs and Pricing Administration, and that the Industrial Costs and Pricing Administration conducts an investigation into the companies' accounts, gives financial controllers more power to prepare cost information studies and get involved in this decision, and means that managers rely on accounting data to ask for price increases. The role of the financial controllers and the managers' reliance on accounting data in the pricing decision grows as these cost information studies have to be compiled frequently because of the everchanging exchange rate of the US dollar to the Sudanese pound. To cope with the high frequency of preparing such cost information studies, the first food company has established a separate Costing Department (within the Accounting Department) specifically to compile the cost information and the related documents,

despite the fact that the company has no cost accounting system. Similar conclusions are reached in investigating the role of the financial controllers in the pricing decisions where there is price control by governments. Saleem (1981), for instance, referring to the role of the financial controllers in the pricing decisions in the Iraqi cement industry, states that:

"When the SOCI asks for a change in cement prices, a full accounting report about costs of production is attached to the request. This may reveal the fact that costs information is essential for pricing decisions. It may also reveal the growing importance of the accountants' status. This is apparent from calling of the accountant to defend his figures."

Karim (1981), referring to the growing role of the accounting department after the introduction of the Price Commission in the UK in 1973, states:

"As a result of the accounting information becoming of more significance in pricing decision, the role of the finance department has grown from just providing information to the marketing department to include using that information to influence pricing decisions."

As far as the export-oriented company, that is, the second textile company, is concerned, our investigations showed that neither was the financial controller of the company required to prepare special accounting studies for the pricing decision, nor did the company's management use the accounting data to make this decision. This is because the company is operating in a competitive market and is witnessing fierce competition price-wise. When asked about his role in this decision, the financial controller of the company, a Canadian cost accountant, responded that he has no role whatsoever because:

"There is no correlation between costs and the price we charge".

The reason is that the prices charged by the company are

much lower than the actual costs of production. This is basically due to the high costs of production which are partly attributed to the high costs of cotton and electricity both being controlled by the government. This in turn explains the huge losses incurred by the company. The pricing decision in the company is a pure marketing decision. Accordingly, the Marketing Department usually makes a price survey in the international market through the specialized journals and accordingly fixes a price for the different yarn counts, which is normally lower than the production costs. Once the price is fixed, the next step is to agree on the price with the Export Promotion Administration of the Ministry of Commerce, Supply, and Co-operation, which is the government body responsible for controlling the prices to be charged for the different products which are to be exported, as will be discussed in more detail in the next chapter.

In the private hotels, on the other hand, like their counterparts in the public sector, the fixing of the hotel tariff, that is, the room rates is dependent on the actual costs of providing the accommodation services and the hotel classification. Out of the two hotels investigated, only the comptroller of the first hotel (Khartoum Hilton) was reported to have prepared special accounting reports to help the management of the hotel to propose and defend tariff increases to the Hotels Control Administration of the Hotels and Tourism Corporation, which is responsible for fixing the room rates of all the classified hotels. The preparation of this cost information is the joint responsibility of the Operations Analyst and the Comptroller of

the hotel. The special cost report is prepared upon the occurrence of a significant increase in the inflation rates or the devaluation of the Sudanese pound, because most of the purchases of the hotel come from abroad. Therefore, upon the identification of a sharp cost increase, the Operations Analyst and the Comptroller of the hotel, submit the cost information to the Marketing Committee, which consists of the general manager, the assistant general manager the marketing manager, the sales manager, the food and beverage manager, and the Comptroller and the Operations Analyst of the hotel. It is then up to the Marketing Committee to apply or not to apply for increases in the room rates.

In other words, the sharp cost increases are not the main consideration in applying for increases in the hotel tariff. Instead, the prime consideration is the competitive room rates used in the other foreign-owned and/or foreign-managed hotels. Once the Marketing Committee agrees on an application for the room rates increases, the Hotel general manager then notifies Head Office in New York for final approval. Based on the approval of the Head Office of the proposed increases, the Marketing Officer then approaches the Hotels Control Administration for the consideration and approval according to the policy of the Administration. For further details on the hotel tariff control by the Hotels Control Administration, see Chapter 8. Therefore, to satisfy the requirements of the Hotels Control Administration of providing cost information when the private hotels apply for tariff increases, the comptroller of the hotel is deeply involved in preparing cost reports to enable the management of the hotel to apply for tariff increases.

In the second family-owned and managed hotel, the financial controller of the hotel is not involved in such a decision and the owners of the hotel themselves compile cost information on which they decide on the tariff increases to be proposed. The hotel managers and owners justified this on the basis that they know the costs which their hotel incurs in providing accommodation services. The hotel manager then showed the researcher one of his applications to the Hotels Control Administration, in which he asked them to re-classify his hotel as a second class (3-star) hotel and thereby increase the room rates. The report showed in detail the costs of the repairs and maintenance made in the hotel. When asked about who supplied the cost information, the general manager of the hotel made it clear that he kept a record of the different costs of the hotel maintenance. When asked whether or not the financial controller of the hotel helped in preparing such cost data, both managers of the hotel responded negatively.

"As a technical manager I know my costs and therefore I can determine the prices of the rooms and the menus. When I want to increase the room prices, I notify the financial controller and tell him that I am going to increase my prices by a certain rate. Then I notify the owner of the hotel to discharge my responsibility, and it is up to him to accept or reject the proposal."

"The financial controller has nothing to do with the price determination and this is the responsibility of the general manager, but I notify him to change the invoices and use the new rates upon the increase of the tariff."

Therefore, the requirements of the Hotels Control Administration of providing cost information upon application for an increase in the hotel tariff enhances the role of the comptroller in the first hotel in providing the cost information, and it would have induced the role of the financial controller of the second hotel in this decision,



had not the role been played by the owner of the hotel. However, managers in both hotels used accounting data, together with other considerations, to decide on the hotel tariff increases.

#### 7.3.2.3 The Investment Decision

The investment decision is another decision area which constitutes a managerial problem, especially in the developing countries which are characterized by scarce resources. In the following lines, we discuss the role of the financial controllers in the investment decisions and whether or not managers use accounting data to make this decision in both the private and public sectors.

##### A. The Investment Decision in The Public Enterprises

The investment decisions in the public enterprises are completely controlled by the Department of Planning of the Ministry of Finance and Economic Planning. This control includes the initiation of the investment projects in line with the economic plans of the country, conducting the feasibility studies for these projects, the procurement of finance to implement these projects, and the implementation and the follow-up of these investment projects. At this stage, as we are primarily concerned with the role of financial controllers and the use of the accounting data in the investment decision, we concentrate on the second aspect of the investment decisions in the public enterprises, that is, the preparation of the feasibility studies. We will deal with the other aspects of the investment decisions in the public enterprises in the next Chapter.

Generally speaking, the investment projects in the public enterprises could be classified under the following two categories.

1. New Projects This category includes the new projects, both factories and hotels, that are either under construction or planned according to the government long-term economic development programmes. Examples of such new projects related to the industries under investigation include the Melut Sugar project in Southern Sudan and Khartoum North Fine Spinning Factory.
2. Rehabilitation Projects In the manufacturing industries, the need for rehabilitating the existing factories arises due to the fact that most of the public factories are operating well below the designed capacity because most of the equipment and machinery is almost worn out. The initiation of the rehabilitation of a certain manufacturing sector is the responsibility of the branch corporations, that is, the Textile and Food Industries Corporations and the Ministry of Industry. The Department of Planning then executes the other steps which we referred to earlier. The rehabilitation projects involve huge machinery replacement. We have already discussed in the first case study the rehabilitation of the public sugar sector. At the time the researcher was collecting data in the second stage of the research, plans were already under way to rehabilitate the public textile factories. Moreover, preliminary negotiations with a Soviet economic delegation visiting the country at that time were held to persuade the Russians to grant loans to rehabilitate the food factories which were originally erected by the Russians. In the public hotel industry, on

the other hand, the need to rehabilitate the first hotel, that is, the Grand Hotel, arose as a result of the government's desire to expand the accommodation and conference facilities in the country. The rehabilitation of this project, known as the Grand Hotel Improvement Project, which was finished in 1978, involved the furnishing of the original building which was built in 1902 by Thomas Cook Company as a guest house for the British Army officers, and the establishment of the conference hall, the swimming pool and the African restaurant.

The preparation of the feasibility studies for all the investment projects in the public enterprises, whether new or rehabilitation projects, is the responsibility of the Project Preparation Unit (PPU), of the Department of Planning (the Ministry of Finance and Economic Planning). The PPU was established in 1976 by virtue of a grant from the World Bank and the Kuwaiti Fund. As its name implies, the primary objective of the PPU is to prepare the feasibility studies for the investment projects of the government economic development plans. However, practically speaking, this objective has not been achieved. Instead of preparing the feasibility studies itself, the PPU acted as an intermediary between the Department of Planning and the foreign consultancy firms which actually prepare these studies. Accordingly, the PPU receives the different investment proposals from the different Technical Administrations of the Dept. of Planning, and then sends them straight away to the foreign consultancy firms. Upon receipt of the offers from the different companies, the PPU selects the foreign company which is supposed to conduct the feasibility study. The PPU then

collaborates with the foreign companies by providing them with some information to help them conduct the study, and then reports back to the Dept. of Planning on the results of the feasibility study. According to the officials of the PPU, the PPU failed to achieve the objective of preparing the feasibility reports because the foreign financiers do not trust the correctness of the feasibility studies compiled by the PPU for two reasons. First, they think that the staff in the PPU is not qualified enough to conduct proper feasibility reports. Second, they think that any feasibility studies prepared by the PPU would be biased, because the benefits from any investment project would be overestimated as long as they are prepared by the Sudanese nationals.

Therefore, out of 28 investment projects initiated since the establishment of the PPU nine years ago, the PPU conducted the feasibility studies for only two investment projects and referred the others to the foreign consultancy firms. Thus the rehabilitation project in the sugar industry was referred to Tate and Lyle which is an English firm, the rehabilitation project of the Grand Hotel was referred to Mefit which is an Italian hotel company, and the rehabilitation of the textile sector was referred to a Swiss company named as Gherzi Textile Organization. One of the two projects for which the PPU prepared a feasibility report is the Melut Sugar Project in Southern Sudan. The report\* is a 200 page book and its contents are typical of any feasibility study.

\*Source: Ministry of Finance and Economic Planning, Project Preparation Unit (PPU), Agro-industrial Feasibility Study of Melut Sugar Project, Khartoum 1985.

The first three parts of the report provide respectively, a historical and geographical background about the site and location of the project, a detailed idea about the irrigation works and the necessary project infrastructure, and the factory expected capacity and the civil works to be done to erect the factory. Part four of the report shows the total capital investment required for both the cane scheme and the factory, together with the working capital costs for the first and second years of operations, the direct and indirect production costs and the expected sales revenues. Part five of the report includes the economic and financial aspects of the project including the financial analysis (the computation of the IRR).

However, it should be made clear at this stage, that this does not mean that all the investment projects in the public sector are subject to rigorous feasibility studies before being implemented, and that even when these feasibility studies are conducted, they are not necessarily the primary consideration in the final implementation and location of these investment projects, especially the new ones. The obvious reason is that the political goals may override the economic considerations, as will be discussed in more detail in Chapter 9. In conclusion to the discussion on the investment decision in the public enterprises, there is evidence that neither did the financial controllers of the public enterprises prepare special accounting reports to help make the investment decision, nor did the managers of the public enterprises use accounting data to make these decisions, as the investment decision is made outside the organization's level.

B. The Investment Decision in The Private Enterprises

Our investigations in the private enterprises, showed that three manufacturing companies and the first hotel made investment decisions. In the two textile companies the investment decisions were basically of an expansion nature whereby new production lines were added, and in the first hotel an investment decision is under consideration to increase the accommodation capacity of the hotel (Khartoum Hilton). In the second food company the investment decision involved a huge machinery replacement and modernization of the existing production lines. As far as the role of the financial controllers in preparing special accounting studies to help management to make the investment decisions is concerned, one could distinguish two categories of companies.

The first category, which includes the first textile company and the second food company, refers the feasibility studies to the foreign consultancy companies, and therefore the financial controllers of these companies have no role in preparing special accounting studies for this purpose. Therefore, the first textile company referred its feasibility study to a Japanese company named as Toyogo, whereas the second food company referred the feasibility study of the investment project to a Canadian company, known as the Shawingan Engineering Company. The second category of enterprises, which includes the second textile company and the first hotel, referred the feasibility study to their financial controllers who prepared special feasibility reports for this purpose. The contents of these feasibility reports include a detailed calculation of the costs and revenues associated with the different expansion options. The

feasibility report prepared by the Comptroller of the first hotel\*, for instance, is subdivided into five parts. The first and second parts show respectively the site of the proposed development options, and the development options themselves. The three development options identified include increasing the accommodation capacity of the hotel by 150 rooms, the establishment of new offices and shopping and recreational facilities which could boost business for the hotel services, and the establishment of 54 luxury flats with a view to easing the accommodation problem in Khartoum. The third and fourth parts of the study present a detailed calculation of the costs and the turnover (benefits) of each development option. The fifth part of the study shows the net profits of the three options altogether, and the cash flow of the three options for the next twelve years when the project is expected to pay back its original costs according to the study. Though the hotel management opted for the first option, however, the project is still under consideration by the Head Office in New York which retains the final authority.

In conclusion, therefore, the role of the financial controllers in preparing special accounting reports to help management make the investment decision, depends on whether the feasibility report is made inside the enterprise or referred to an outside consultancy firm. However, in accordance with the requirements of the Investment Encouragement Act 1980, all the potential private investors or existing enterprises have to submit a feasibility study if their projects are to be considered and approved by the Bureau of

\*Feasibility Report for The Proposed Development At The Hilton Site in Khartoum, January 1986.

Investment, of the Ministry of Finance and Economic Planning. For further discussion on the government control over the investment programmes, see Chapter 8. As the approval of new investment programmes means more pressure on the already scarce hard currency, the consideration and approval of applications is by no means a rubber stamp. Therefore, all top management of the four enterprises which made investment decisions relied heavily on these feasibility studies to decide on these investment options before presenting and defending their applications before the Bureau of Investment. Therefore, one could conclude that the requirements of the Bureau of Investment according to which potential investors prepare feasibility reports has improved the chances of the financial controllers of these companies to get involved in preparing special accounting reports for investment decisions to some extent, and induced managers to use accounting data in the investment decisions to a greater extent.

#### 7.4 Concluding Remarks

The discussion in this chapter centred around the role of the controllership function in reporting to management in both the public and the private sector enterprises. As the receipt of accounting data does not necessarily ensure its use, the chapter also solicited the managers' views on the uses they make of the accounting data.

Accordingly, we investigated the informational services provided by the controllership function in both the public manufacturing and hotel sectors. Our findings tend to suggest that the bulk of the time of the controllership in



the public enterprises has been devoted to carrying out the book-keeping activities in these organizations. This is particularly true as the use of computers in accounting activities is lacking in the public enterprises. Additionally, we found that the controllership function in the public enterprises has given top priority to sending the various regular and irregular production and accounting reports to the external supervising government bodies. These findings, therefore, tend to suggest that little time has been left for internal reporting to management. Therefore, as a result of the poor informational services to managers in the public enterprises, the use of accounting data by the general managers of these enterprises was confined to the score-card purposes. The use of accounting data for problem-solving in particular is lacking in the public enterprises, as all the major decisions are made outside the organization.

Therefore, the question of whether or not the financial controllers of the public enterprises have participated in making these decisions by preparing special accounting reports simply does not arise. These conclusions coincide with Rikabi's (1984) findings in other public textile factories. It is not surprising, therefore, to find that only the general managers of these enterprises have received accounting data, mainly being the conventional financial statements which were much in arrears and were specifically prepared for the use of the external government bodies. On the whole, therefore, one could conclude that the role of the controllership function in internal reporting to management is simply non-existent in the public enterprises. Welsch (1964), referring to the situation where

financial controllers discharge their responsibility of internal reporting to management by sending the same accounting reports originally prepared for external users, makes it clear that:

"It is important to realize that the usual accounting report prepared for external use has limited application for internal managerial purposes. Accountants who attempt to meet the problems of modern management with the types of reports designed for external purposes, are failing in their responsibilities."

In the private enterprises, on the other hand, our investigations showed that the controllership function has devoted a significant proportion of its time to internal reporting to management. It would seem that the fact that the controllership function in the private enterprises is not involved in reporting to external government bodies apart from the Taxation Department, has eased the pressure on the controllership function and enabled it to concentrate on internal reporting to management. Furthermore, it is quite evident that the use of computers in accounting activities in some private enterprises has enabled the controllership function to devote much more time to internal reporting rather than embarking on record-keeping. Therefore, it is not surprising to find that the controllership function in these enterprises is involved in providing frequent and various accounting reports and has direct communication channels with the different management levels. These frequent informational services helped managers to use the accounting data for score-card, attention-directing and problem-solving purposes. In particular, the role of the controllership function in preparing special accounting reports for both the pricing and the investment decisions has been boosted by the requirements of the Industrial Costs and Pricing

Administration and the Bureau of Investment, which necessitate the provision of cost and financial studies. Generally speaking, therefore, the controllership function is actively involved in the management of the private enterprises.

Consequently, viewed within the public-private ownership dichotomy, the findings of this chapter tend to confirm the second research hypothesis, according to which the role of the controllership function in internal reporting to management is low in the public enterprises and high in the private enterprises. However, once again, one has to warn against the hazards of overgeneralization of conclusions. This is because our findings indicated that the role of the controllership function in internal reporting in two private enterprises, that is, the first food company and the second hotel, is very low compared to their counterparts in the private sector. This is a very interesting finding which suggests that the role of the controllership function is different even among the private enterprises. This finding in turn raises another question which was not originally posed by the main research question, which is, why does this difference arise? As this chapter is purely descriptive, this question will be answered in the next part of the research. It is quite evident, therefore, that the main research question could not only be raised in connection with the public-private ownership dichotomy, but could be elaborated and extended to investigate the differences in the role of accounting and accountants in the private enterprises and the reasons thereof.

The conclusions of this chapter have many implications for the current body of literature on management accounting research in the developing countries. Most important, while the results of the previous empirical research on the role of the controllership function in the developing countries have concluded that it is generally very low, this study pinpoints that the role of the controllership function in the Sudanese enterprises depends on whether the enterprise is owned by the public or the private sector. The significance of the findings of this chapter is that they contradict the conclusions of the previous empirical research on the role of the management accounting and accountants in the enterprises of the developing countries. As such, the conclusions of this chapter represent a new trend in the state of the art of the current body of literature on the role of the controllership function in the developing countries. In general, therefore, these conclusions represent a departure from the previous conclusions reached by empirical accounting research in the developing countries. Thus, the importance of the findings of this chapter is that they suggest that the role of the controllership in a developing country may largely depend on the status of the enterprise, that is, whether it is publicly or privately-owned.

On the whole, therefore, and to say the least, the findings of this chapter tend to question the conclusions of the previous empirical accounting research in the developing countries. This is particularly true as most of the previous studies did not investigate the role of the controllership function in the public-private ownership

dichotomy. Undoubtedly, the findings of this chapter do not imply that they are equally applicable to the other developing countries. Instead, they pinpoint the urgent need for further empirical accounting research in the developing countries along the public-private ownership lines. In the next part of the thesis, we will address the question of why these differences in the role of the controllership function arise between the public and private enterprises.

**PART THREE : IMPACT OF THE DEGREE OF GOVERNMENT CONTROL,**  
**ORGANIZATIONAL AND MANAGERIAL FACTORS ON**  
**MANAGEMENT ACCOUNTING TECHNIQUES AND**  
**CONTROLLERSHIP FUNCTIONS IN SUDANESE PUBLIC**  
**AND PRIVATE ENTERPRISES**

## Chapter 8

### The Degree of Government Control Over The Public and Private Enterprises and The Level of Sophistication of Management Accounting Techniques and The Role of The Controllership Function

In this chapter, as well as in the next two chapters, we will try to answer the second question of the research, that is, why the level of sophistication of management accounting techniques and the role of the controllership function in internal reporting to management is low in the public sector enterprises and high in the private sector enterprises, as we have already discussed in Chapters 6 and 7. This chapter will concentrate on the impact of the degree of government control over the public and private enterprises in various control areas.

#### 8.1 The Government Financial Statutes

Our investigations in the public sector enterprises revealed that the government financial statutes and regulations imposed on and implemented by these enterprises are a major means of government control. Though the contents of the government financial statutes are the same in the public enterprises, nevertheless, the authority to issue these financial statutes differs in the public manufacturing companies and the public hotels. Thus, the power to issue government financial statutes in the public industrial sector rests with the Industrial Production Corporation (IPC) which is the government supervisory body established to manage the public manufacturing companies. Therefore, by virtue of the government financial statutes used in the

public manufacturing sector, the IPC is authorized to amend, add or omit any item or any part of the financial statute and to issue the procedures and illustrations which are obtainable from the statute. On the other hand, the branch corporations, that is, the Textile and Food Industries Corporations, and the production units are required to strictly follow the provisions of the financial statute according to section 2(B) which states that "heads of the branch corporations and the general managers of the production units should commit themselves to the execution of this statute and any procedures obtained from it." Despite the fact that the IPC was liquidated in 1978, nevertheless, the financial statutes continued to be implemented in both the branch corporations and the production units in the food and textile sectors according to the instructions of the Ministry of Industry. In the public hotel sector, on the other hand, the authority to enact and impose the government financial statutes rests directly with the President of the Republic. The reason is that the Hotels and Tourism Corporation, which manages the publicly-owned hotels, is not attached to any other central ministry. Therefore, it was the President of the Republic who issued the Financial Statute of the Hotels and Tourism Corporation in March 1985. These financial statutes are "to be applied to all the transactions of the corporation, the public hotels, and all the utilities attached to the corporation." As the contents of these government financial statutes are almost identical in both the manufacturing and hotel sectors and for reference purposes, we refer the reader to Appendix B which shows the government financial statutes implemented in the public manufacturing sector.



These government financial regulations outline the broad lines which govern the budgeting, accounting and auditing systems in these enterprises, in addition to arranging other activities in these enterprises. The major objectives of the imposition of these government financial statutes are two-fold. First of all, the most important objective which has been emphasized throughout these financial statutes is to protect the public money against theft and defalcations. The second objective is to unify the practices in the government-owned factories especially in the food sector where the Food Industries Corporation manages some production units which used to be privately-owned and were confiscated in the early seventies and have got their own management practices, as will be discussed in more detail in Chapter 9. Basically, therefore, the government financial statutes implemented in the public enterprises lay down the broad lines for the financial accounting systems to be maintained by the production units, that is, the individual factories, and the operating units, that is, the individual public hotels. Accordingly, the government financial statutes require that all the public enterprises are to maintain their books of accounts, record their transactions using the double-entry book-keeping system and to prepare their final accounts and send them to the respective branch corporations and the Auditor General.

In addition to this, the government financial statutes in the public hotels went a little further and contain general guidelines on the designing of the financial accounting system and asset valuation. Accordingly, the financial controllers of the public hotels are ordered "to

make use of the accounting systems followed by the state when designing their accounting systems and documents -", to depreciate their fixed assets on the straight line basis and to evaluate their current assets on the basis of the original cost.

In addition to the general provisions of establishing the financial accounting system, the government financial statutes in the public manufacturing companies has provided the broad lines for designing the cost accounting systems. This mainly included the various books of accounts to be used in connection with the cost accounting system and the various cost centres to be set up in the system. Nevertheless, we found that none of the public manufacturing companies, with the exception of the first textile company, had got established cost accounting systems. This is basically attributed to the fact that the initiative to design and introduce modern management information systems in the public manufacturing sector is the responsibility of another government body, that is, the Industrial Research and Consultancy Centre, of the Ministry of Industry. The Centre was established in 1965 by the United Nations Industrial Development Organization (UNIDO). Among other objectives, the Centre was mainly established, as its Act stipulated:

"to tender advice and consultancy to the client of the Centre in the public and the private sectors in the field of industrial planning, industrial engineering, management of production and its efficiency, quality control, industrial costing, financing, marketing, transfer of modern technology and developing and adapting it in the field of removing technical operation bottlenecks, and help in laying down and applying modern Industrial Management Systems." \*

\*The Industrial Research and Consultancy Centre Act, 1980, Khartoum, Sudan.

To achieve this objective in the public sector, the Industrial Research and Consultancy Centre has established a separate unit named as the Efficiency Improvement Unit for the Public Industrial Corporations. Our findings in Chapters 6 and 7 suggested that this unit has not achieved its objectives. According to the officials of the Efficiency Improvement for the Public Industrial Corporations the reasons for this are two-fold. First, the shortage of qualified staff as most of the UNIDO expatriates have left and the trained Sudanese staff have emigrated to the Arab oil countries. Second, the unit is supposed to introduce modern management information systems in all the public manufacturing industries which is almost impossible given this acute shortage of staff. Therefore, the unit has been selective in introducing the UNIDO cost accounting systems in some textile and oil factories and some public tanneries.

On the other hand, the government financial statutes in the public enterprises have contained some provisions on the budget range and structure. First of all, the government financial statutes linked the timing of the budget in the public enterprises to the duration of the state budget which starts by the beginning of July and ends by the end of June next year. Moreover, the government financial statutes specify the deadlines for estimating the budget by the public enterprises and the dates of submission of these budgets to the respective branch corporations. Most important, however, is that the government financial statutes made it clear that the public enterprises and the branch corporations have to structure their budgets in accordance with the instructions contained in the Budget Preparation

Manual issued by the Budget Administration of the Ministry of Finance and Economic Planning. Thus, in the public manufacturing sector, the government financial statutes state that:

"the contents of the budgets of the production units and the branch corporations should be categorized according to the Budget Preparation Manual issued by the Ministry of Finance."

The government financial statutes of the Hotels and Tourism Corporation also state that:

"The budgets of all the hotels must contain the revenue and expenditure items for its different activities and it has to be classified according to the provisions and the instructions of the concerned government bodies", referring to the Budget Preparation Manual issued by the Budget Administration, of the Ministry of Finance.

On the other hand, the governmental financial regulations identified the government bodies responsible for the internal auditing function and the objectives of the internal audit in the public sector enterprises. Thus, the financial statutes of the public manufacturing companies made it clear that internal auditing of the individual companies is the responsibility of both the IPC and the branch corporations. When the IPC went into liquidation, the internal audit function in the public manufacturing companies continued to be carried out by the internal audit units established in the headquarters of the branch corporations according to the objectives of the internal auditing stipulated in the government financial statutes. Similarly, the financial statutes of the public hotels state that internal auditing in the public hotels is the responsibility of the two internal audit units established in the Hotels and Tourism Corporation, that is, the Financial

Audit and Inspection Unit and the Technical Inspection and Audit Unit. The financial statutes of both the public manufacturing companies and hotels then list the objectives of the internal audit function, which are heavily geared towards ensuring the application of these financial statutes, and consequently minimizing theft and defalcations.

In view of the main objective of the government financial statutes, these statutes explain in detail the various procedures and documents to be used with a view to protect public money. Thus, the financial statutes explain in detail the various procedures, persons and documents involved in handling the stores issues and receipts. Similarly, the financial statutes explain in detail the necessary steps to be taken to safeguard the safes of the public enterprises such as keeping the keys of the safes, time of closing the safes, and the stock-taking of the safes. Moreover, the financial statutes explain in detail the necessity of using the payment and receipt orders to authorize cash payments and receipts after being signed by the financial controllers. Additionally, the financial statutes explain in detail the necessary steps to be taken by the financial controllers of the public enterprises to collect the accounts receivable, particularly in the public hotels where the financial controllers are directly responsible for this job. For instance, the financial statutes of the public hotels state that:

"financial controllers of the public hotels must design and implement a collection system for the accounts receivable to ensure speed of the collection system."

It is not surprising, therefore, that the financial controller of the second hotel used to chase some government

institutions and persons to collect money in return for accommodation services provided by the hotel.

Furthermore, apart from determining the budget range, structure and submission deadlines, the government financial statutes have emphasized the importance of budget control at the level of public enterprises. This is exceptionally important as the budget in the public enterprises is mainly used as a vehicle to implement the government fiscal policies to fight inflation in the country, as will be discussed shortly. Therefore, according to the provisions of the government financial statutes, it is the responsibility of the financial controllers to control the budget. Thus, the financial statutes of the public manufacturing companies state that:

"the head of the financial department must follow-up and control the execution of the ratified budgets."

Similarly, the financial regulations implemented in the public hotels provide that:

"the Corporation has to force all its operating units (namely the individual hotels) to operate within the budget and it is the responsibility of the financial controllers of these units to send a quarterly report to the Corporation showing the actual expenditure compared with the budgeted amounts."

Finally, over and above the implementation of the government financial statutes, all the public enterprises are subjected to the purchases statutes issued by the respective public corporations. The purchases statutes show the ratification authorities to be shared between the respective public corporation and the management of the public enterprise, together with a detailed description of the procedures connected with the purchases of raw materials and spare parts.

Briefly speaking, the purchases statutes emphasized the need to strict adherence to the following procedures whenever purchases of raw materials and spare parts are to be made at the public enterprise level.

1. A purchasing committee has to be formed at the public enterprise level to handle the purchases of raw materials and spare parts,
2. All the purchases of raw materials and spare parts have to be acquired by means of open tenders procedures whereby an advertisement has to be published in the daily newspapers calling for prospective bidders. A period of two to four weeks must be allowed between the date of advertisement and the closing date of opening of tenders,
3. The tenders should be kept in a closed box on which the words 'tenders box' are to be written and the key of the box should be kept by the responsible manager and unsealed tenders should not be accepted,
4. Tenders should be opened secretly by the purchasing committee after the expiration of the advertisement period,
5. Tenders should be arranged in a specific form in which some particulars, such as name of the tender applicant, the paid insurance, the tender value, terms of payment, and the period during which the offer is in force, are to be inserted,
6. The cheapest tender should be selected by the purchasing committee, and the expensive tenders are to be accepted only if the purchasing committee could give sound reasons for its acceptance, and
7. The heads of the public enterprises are authorized to acquire some purchases such as cars, fuels, and other items

produced or imported by a limited number of producers or importers, through limited tenders or direct purchase rather than unlimited open tenders.

In the previous paragraphs we discussed the main contents of the government financial statutes applied in both the manufacturing companies and the hotels. We now turn to discuss the direct negative implications of these statutes for the level of sophistication of management accounting techniques and the role of the controllership function in the public enterprises. First of all, a closer look at the government financial statutes would reveal that they put much more emphasis on maintaining the conventional financial accounting systems. Thus, they asserted that all the public enterprises should keep adequate books and records and use the double entry book-keeping systems in recording their transactions. Moreover, to ensure implementation of these provisions, the internal auditors of the branch corporations are authorized to audit and recommend changes in the used financial accounting systems.

Thus, it would appear that the government financial statutes have emphasized the application of the conventional financial accounting systems and underestimate the importance of the modern management accounting techniques.

However, even when the government financial statutes provided for the application of some modern management accounting techniques like cost accounting as in the public manufacturing industries, nevertheless nothing has materialized. This is because the responsibility for introducing these systems is assigned to other outside government bodies like the Industrial Research and Consultancy Centre. This in



turn made the financial controllers and managers of these enterprises maintain passive attitudes towards the introduction of modern management accounting techniques. Therefore, one could conclude that the creation of separate government bodies to introduce the modern management information systems in the public sector enterprises, like the Efficiency Improvement Unit for the Public Industrial Corporations, has handicapped and discouraged the financial controllers and managers of these enterprises from taking the initiative of introducing the modern management accounting techniques on their own.

On the other hand, the government financial statutes have described in detail the various procedures, documents and persons involved in handling the stores receipts and issues and purchases procedures without referring to the optimum stock levels to be maintained by these enterprises or the importance of the use of the EOQ for inventory planning and control purposes. Similarly, the government financial statutes explain in detail how to handle the cash receipts and payments, and how to safeguard the safes of these enterprises without mentioning a word on the liquidity ratios that could be maintained by these enterprises to facilitate smooth production. It is not surprising therefore, to find that some companies in the public manufacturing sector faced working capital problems to the extent that they were unable to pay for the salaries of their employees. Moreover, in conformity with the main theme of protecting the public money against theft and defalcations, the objectives of the internal auditing have been reduced to the conventional statutory audit at the

expense of the efficiency audit for which the public enterprises are in desperate need. Therefore, the government financial statutes have remained silent on the role of the management of the public enterprises in utilizing the available resources efficiently and effectively, which in turn should have motivated the application of the modern concept of efficiency audit. Therefore, it would appear that the government financial regulations are heavily geared towards protecting the public money against defalcations without any attempt to improve the performance of the public enterprises. Therefore, one could conclude that the government financial statutes have emphasized the importance of protecting the public money against theft and defalcations without any attempt to improve the efficiency and effectiveness of the public enterprises by applying such modern management accounting techniques.

Similarly, the government financial statutes have got many negative implications for the role of the controllership function in the public enterprises. First of all, while emphasizing the role of the financial controllers in authorizing and signing all the cash receipts and payments, the government financial statutes mentioned nothing on the role of the financial controllers in internal reporting to management of the public enterprises. This would appear to have discouraged the role of the controllership function in internal reporting. Second and most important, the requirements of the financial statutes, such as signing all the cash receipts and payment orders, the stock-taking of the safes of the public enterprises, handling of the stores receipts and payments and collection of accounts receivable,

have put more pressure on the controllership function and distracted its attention from its major job of internal reporting to management. Additionally, the financial controllers are required to control the budget by virtue of the government financial statutes which has led the controllership functions in these enterprises to establish separate sections to safeguard the budget and devote much more time for this purpose. These findings, therefore, tend to suggest that the requirements of the government financial statutes have diverted the role of the controllership function in the public enterprises from internal reporting to management to concentrating on the routine and clerical work with a view to ensuring the application of these government financial statutes and safeguarding the public interests and money. Not only that, but the impact of the government financial statutes has even extended to affect the management's attitudes towards the role of the controllership function in their organizations, as will be discussed later in Chapter 10.

In the private sector enterprises, on the other hand, our investigations showed that the government financial statutes, which are rigidly adhered to in the public enterprises, are simply unknown. When asked about whether or not the government has any say in any aspect of their budgeting, accounting and auditing systems, all the financial controllers of the private enterprises responded negatively. The government control in this respect is reduced to the imposition of the depreciation rates to be used in connection with the valuation of fixed assets and the preparation of the conventional financial statements.

These depreciation rates are fixed by the Taxation Department. The following statements are typical of many.

"The Department of Taxation has got its own rates and methods of depreciation for the different fixed assets and forces all the companies to conform to."

"We receive the depreciation rates from the Taxation Dept. This is the policy of the government and we have no say in it because it is applicable to all the companies."

"No. This is a private hotel."

and that:

"There is no government control over our accounting policy, except that the Taxation Dept. sends us the depreciation rates. This is after all a normal international practice."

Instead, at least four private enterprises, that is, the two textile companies, the second food company and the first hotel, have got their own accounting policies and procedures manuals, which are part of the overall organization manual. Though the amounts of details in these enterprises may vary from one enterprise to another, generally speaking they contain the organization structure of the accounting department, the responsibilities and the job requirements of the different sections in the accounting department, the different books of accounts in use, the different cost centres in these enterprises, the formats of the various documents in use, the budget formats and the budget preparation process, and the different types and frequency of the accounting reports to be prepared in the enterprise. In the Khartoum Hilton hotel, for instance, the accounting policies and procedures manual is part of the Standard Practices Instructions Manuals, which govern the practices in the Hilton Hotels world-wide. According to the financial controllers of these enterprises, these

accounting policies and procedures manuals are designed to assure the application of consistent procedures and practices inside the accounting departments to help train the new accountants, and to provide a basis for auditing by both internal and external auditors. However, the other two family-owned and relatively small enterprises (the first food company and the second hotel) are less formal and have not got any accounting policies and procedures manuals. Thus, in the first food company there is a brief mention on the accounting system to be used in the company memorandum of association which maintains that:

"the board of directors must keep correct accounts on all the cash expenditure and receipts and all the sources and the documents thereof, besides the assets and the liabilities of the company"

without any reference to the other management accounting techniques like cost accounting systems and budgets. In the second hotel, however, there is even no mention of the accounting systems to be used in the hotel. The financial controller attributed this to the fact that:

"Our accounting system is not written because we know it."

Therefore, the fact that the government financial statutes are not imposed and implemented in the private sector enterprises has many positive implications for the level of sophistication of management accounting techniques and the role of the controllership function in internal reporting in these enterprises. First of all, this gives the management of the private enterprises a free hand to introduce and apply the different management accounting techniques rather than just adopting those stipulated in the government financial statutes as in the case of the

public enterprises. This conclusion depicted itself in three ways. First, the initiative to introduce the modern management accounting techniques in the private enterprises is usually taken by the management of these enterprises, rather than just waiting for outside government bodies to do it. Second, the internal auditing function in these enterprises is the responsibility of these enterprises and it has not been referred to any government body like the internal audit units in the branch corporations as we have already discussed in connection with the public enterprises. This explains why almost all the private enterprises have got their own internal audit units. Third, the private enterprises are freed from adopting the conventional government budgeting with its traditional chapter classification. This in turn enabled the private enterprises to have their own short-term and long-term budgets which are effectively used for planning, controlling and performance evaluation purposes.

On the other hand, it would appear that the fact that the government financial statutes are not imposed on the private enterprises has eased the pressure on the controllership function in these enterprises and enabled it to concentrate on internal reporting to management. The reasons for this conclusion are twofold. First, the controllership function is no longer required to report to external government bodies as in the case of the public enterprises. Second, the controllership function is no longer required to handle the routine and clerical work, like the collection of accounts receivable, the safeguarding and inventory taking of the safe, and the handling of the stores issues and receipts. Consequently, the controllership function has

devoted much more time to providing informational services to management than its counterpart in the public sector. Indeed, the inclusion of the frequency and types of accounting reports to be produced in the accounting policies and procedures manuals is a clear indication that the controllership function in these enterprises has to give top priority to internal reporting to management.

## 8.2 Price Control by Government

Another area which is subject to government control in both the public and the private sector enterprises, is the fixing of the prices of products and the hotel accommodation services.

We first discuss the government control over prices in the public sector enterprises. As we have already pinpointed in Chapter 7, the prices in the public enterprises are completely controlled by the branch corporations, that is, the Public Corporation for the Textile Industries, the Food Industries Corporation and the Hotels and Tourism Corporation. Thus in the public manufacturing industries, the prices of products are fixed by the first two branch corporations according to the provisions of the government financial statutes (see Appendix B) as regards the basis of fixing these prices, members of the price committees responsible for setting prices at the branch corporation level, the method of payment, that is cash or on credit, for the products that face competition and those which do not. Moreover, as the grey fabrics - Damoria - are considered as popular goods, the Commercial Administration of the Public Corporation for Textiles determines even the

distribution channels which are to be regionalized and restricted to the licenced merchants and co-operatives who produce the tax identity card, with a view to combat monopoly over this essential consumer good. Emphasizing this point, the manager of the Commercial Administration in the Textile Corporation stated that:

"The price and the sales policy is centralized in the headquarters. There are only small commercial divisions in the production units for distribution."

Needless to say, even these branch corporations have to contact the Industrial Costs and Pricing Administration for the final approval of the prices to be charged for the products of their production units.

In the public hotels, on the other hand, the Hotels and Tourism Corporation determines not only the hotel tariff for its operating units but the sales policy in terms of methods of payment and the discount limits as well. Thus, the corporation has made it clear to the financial controllers of the public hotels that occupants must pay either in cash, by means of American Express and Visa cards, or being paid by the hosting government institutions. Moreover, the corporation determines the discount limits with which these hotels are to abide. For instance, the general managers of the public hotels could give up to 25% discount in the room rates if necessary provided that they justify this to the corporation and they could give up to 50% discount for a newly-married couple. This policy of giving discounts has been adopted by the corporation to enable the public hotels to compete with the other privately-owned hotels. One official in the Hotels and Tourism Corporation argued



in this respect that:

"The discount policy is used by the private sector and we adopted it to compete with them."

It is worth mentioning that failure to abide with the room rates and the discount limits determined by the corporation is not without legal consequences for the operating management of these hotels. One financial controller of these hotels argued that:

"If any employee in the reception did not obey these instructions, he has to pay any differences from his salary."

It is worth mentioning that the price control by the branch corporations basically emerged as a result of their organization structure. These branch corporations are the government supervisory bodies which are established by means of a special warrant of establishment issued by the President of the Republic. The creation of the branch corporations itself reflects the government desire to tighten control on the public enterprises and link them directly to the government apparatus. Accordingly, the individual public enterprises are subordinated to these branch corporations, and consequently their managerial autonomy has been considerably undermined. This type of organization structure is basically designed not only to ensure goal congruence in pricing decisions, but to achieving the government efforts to develop a certain industrial sector, whether in the manufacturing or service industries, within the overall government economic and social goals. More details on the organization structure are to be released in Chapter 9.

On the whole, the full price control by government through these branch corporations is basically meant to achieve the goal congruence of the pricing practices in the

public sector enterprises. This underpricing practice, a situation where the prices of the products are lower than their original cost of production, are quite common in the public manufacturing companies. This is done with a view to reduce the cost of living to the mass public. The pursuit of this objective has made the public enterprises incur huge losses and has created a feeling of resentment among some managers who kept grumbling about the impact of these practices on the performance of their enterprises. Similarly, the Hotels and Tourism Corporation charges lower room rates with a view to promoting the tourism industry in the country. Thus, at the public enterprises level, the financial controllers and the general managers are discouraged from determining the actual costs of production and services and there is total confusion.

In fact, the general managers of the public enterprises are discouraged from genuine attempts to consider improving the effectiveness and efficiency of their enterprises. This in turn, as some financial controllers stated explicitly, has discouraged the managers of the public enterprises from making any serious attempts to utilize the modern management accounting techniques like cost accounting systems and use them for cost accumulation and cost control purposes. On the other hand, since the price-setting process is originated and made outside the organization level, there is no way that the controllership function in the public enterprises could play a vital role in preparing special accounting studies and defending the cost data. Thus, one could conclude that the objective pursued by the branch corporations in achieving goal

congruence in the public enterprises is achieved at the expense of the low level of sophistication of management accounting techniques and the role of the controllership function in internal reporting in these enterprises.

In the private enterprises, on the other hand, the government has established some bodies to control prices of the final products and services. Thus, the price control by the government in the private enterprises could be classified into three categories according to the nature of the products. These are as follows:-

1. Government Control over the Prices of the Locally-produced and Consumed Products

The government maintains full control over fixing the ex-factory (ex-gate) prices of the products that are locally produced and consumed. The price control by government in Sudan was originally established by the Organization and Promotion of Industrial Investment Act of 1967 which stated that "the enterprise shall be bound to sell its industrial products for local consumption at the ex-factory prices fixed by the Ministry (of Industry) on the basis of the production costs." The new Industrial Investment Act of 1974 and the Encouragement of Investment Act of 1980 did not bring any change as regards price control by government. Accordingly, the Ministry of Industry has established a separate administration, that is, the Industrial Costs and Pricing Administration, to discharge this responsibility.

Thus, the ex-factory pricing of the locally produced and consumed products is controlled by the Industrial Costs and Pricing Administration of the Ministry of Industry.

This applies to all the registered private manufacturing enterprises and the public manufacturing branch corporations on behalf of their production units. The logic behind price control by government is mainly the protection of the consumer price-wise, as it is considered that in some products there is no fair competition and consequently the enterprises, particularly in the private sector, may charge the consumers higher prices. Therefore, for the first year of operations, the new manufacturing companies are obliged to sell at the price of a similar item produced by an existing company in Sudan. If there is no comparable domestic production of such item, the ex-factory price is fixed in accordance with the import price of this item, to which is added the inland transportation cost. To apply for price increases, all the private manufacturing companies and the public manufacturing corporations are required to submit to the Industrial Costs and Pricing Administration all the relevant cost information including the costs and invoices of raw materials, spare parts and components, labour costs and other costs. These applications take place frequently due to the frequent increases in the cost of raw materials which occur because of the devaluation of the Sudanese pound by the government or the sharp increases in the US dollar exchange rate in the private bureaux du change.

Upon receipt of these applications, the Industrial Costs and Pricing Administration carries out a thorough cost investigation in the applicant companies, mainly in the private sector. The cost information presented by the public manufacturing corporations is not subjected to rigorous analysis as they are trusted to produce the correct

figures because they are not mainly geared towards profit-making. This cost investigation basically involves cost analysis to verify the cost data incorporated in these applications. Therefore, the cost of raw materials is verified through investigation of the invoices of these raw materials and to make sure that they are stamped by the relevant government authorities. Moreover, the staff of the Administration closely scrutinizes the pay sheets of these manufacturing companies to verify the labour costs. As far as the other manufacturing expenses are concerned, the employees of the Administration depend mainly on the recently audited financial statements, that is, the Balance Sheet and the Profit and Loss Account of these companies.

Once the production costs of the different manufacturing companies have been verified, a profit margin ranging from 5% to 15% is usually added by the Administration for all the similar products. In adding the profit margin, reference is made to the landed prices of the equivalent imported products. When domestic costs are above the landed cost, the profit margin to be added is usually low, that is 5%, and when the local cost is lower than the cost of the imported products, the profit margin to be added is 15%. Once an ex-factory price has been set, the Administration contacts the Ministry of Finance to collect the excise duties, and the Ministry of Commerce, Supply and Co-operation to determine the wholesale and retail margins applied to the ex-factory prices. One of the drawbacks of this way of fixing the prices of the locally produced and consumed products is that the data for calculating costs is solely based on information provided by the manufacturing

companies. Thus, the staff of the Administration processes the data without any independent knowledge of the production costs involved.

## 2. Government Control over the Prices of The Export Products

The determination of the prices of the products of the second textile company, which is export-oriented, is also subject to government control. The Ministry of Commerce, Supply and Co-operation is the responsible government body for fixing the prices of export products. To discharge this responsibility, the Ministry has established a separate administration called the Export Promotion Administration. The general principle for determining the prices of export products is to charge the same prevailing international prices with a view to maximizing the country's proceeds from the hard currency. This is particularly true as the country faces an acute shortage of hard currency. The Export Promotion Administration relies on three sources to determine the prices of export products. Firstly, the information collected by the Trade Information Service Centre in the Ministry, which collects information from some international magazines which show the current prices of the different products, such as the Cotton Outlook magazine issued by the Liverpool Cotton Services Limited. The second source of information is the actual costs of production that have to be produced by the company itself. These actual costs are only used as an indicator since the ultimate price is to be fixed by the international market in the case of the products that face competition. The third source of information used by the Export Promotion

Administration to fix the prices of the export products is the information provided by the Sudanese economic counsellors abroad.

Depending on these sources of information, the Export Promotion Administration then fixes prices for the different export products. In the next step, the companies which would like to export products will have to approach the Export Promotion Administration and propose their own prices. In the case of the second textile company, as we have already mentioned, the proposed prices are much lower than the actual costs of production due to the competition in the international market. It is worth mentioning that the agreement on the prices of export products between the second textile company and the Export Promotion Administration is not an easy process due to conflicting interests. On the one hand, the Export Promotion Administration wants to fix prices as high as possible to increase the proceeds to the country of the hard currency. On the other hand, the second textile company wants to fix a price which will enable the company to compete price-wise with the other international spinning companies. According to the marketing manager of the second textile company, they usually convince the Export Promotion Administration to accept the prices they propose on the basis that they face severe competition price-wise.

### 3. Government Control Over The Hotel Tariff

The government control over the hotel tariff, that is, fixing the room rates, was originally established by the Organization of Hotels and Public Places Act of 1977, which states that: "(1) the local authorities, after consulting

the Hotels and Tourism Corporation, have to determine occasionally the room rates in the different hotel classifications by means of an advertisement published in the daily papers, and (2) The Hotels and Tourism Corporation has to prepare a list of the room rates, stamp it and send it to the hotels. The hotels managers have to put the list of the room rates in a clear position and strictly adhere to it." However, it is worth mentioning that the government control over the hotel tariff is restricted only to the classified hotels, that is, all the hotels ranging from one-star to five-star hotels. Therefore, by virtue of the 1977 Regulation, a special committee was established for this purpose. The committee, named as the Price Determination Committee, is presided over by the head of the Economic and Financial Affairs of the National Capital and consists of some representatives of the owners of the private hotels as members of the committee. According to one official in the Hotels Control Administration, there are two main considerations for determining and increasing the hotel tariff.

The first consideration is the hotel classification, that is, whether it is a one, a two, a three, a four, or a five-star hotel. The various specifications for each hotel classification are determined in detail by the 1977 Regulation. The second consideration in determining and increasing the room rates is the cost of providing the accommodation services such as the cost of linen, electricity, heating, conditioning, towels, washing up liquids and the labour costs. In fact, this is the most important reason which makes most hotels, especially the first hotel which procures most of its requirements from abroad, to apply for increases



in the room rates. This is mainly because of the frequent devaluation of the Sudanese pound to the US dollar and the rapidly increasing inflation rates.

Therefore, in view of these two considerations, the private hotels have to apply to fix or increase the room rates. Accordingly, a private hotel may apply for re-classification and consequently increase the room rates as a result of improvements in the hotel facilities. In this case, the private hotels have to include in their applications a detailed narrative description of the new facilities, together with their costs, that were added to the hotel. Upon the receipt of this application, the Price Determination Committee refers it to the Hotels Control Administration which is a member in the committee, for consideration. Inspectors of the Hotels Control Administration then investigate the new improvements claimed by a certain hotel, according to which they decide whether or not to reclassify the hotel. The Price Determination Committee then decides whether or not to increase the hotel tariffs for an applicant hotel on the basis of the recommendations of the Hotels Control Administration. On the other hand, if any private hotel applies for increases in the room rates because of cost increases, then in this case the private hotel has to provide in its application a cost comparison report showing the current and the previous costs of providing accommodation services and the proposed room rates and the current room rates.

Again, upon the receipt of such an application, the Price Determination Committee refers the matter to the Hotels Control Administration. The latter then conducts a detailed cost investigation in the applicant private

hotel to confirm or disprove the claims of cost increases shown on the cost comparison report. This includes checking the books, the various documents and the audited financial statements of these hotels. The inspectors of the Hotels Control Administration then recommend whether to accept or reject the tariff increases for a certain applicant hotel and notify the Price Determination Committee. If the hotels' applications for price increases are accepted, then the Price Determination Committee fixes a percentage for each hotel classification to operate within. For instance, in the wake of the wave of sharp increases in the labour costs as a result of new government labour regulations, the Price Determination Committee approved a 20% maximum rise in the room rates for the different hotel classifications. It is then up to the private hotels to apply the suitable percentage increase depending on their competitive position.

In the previous paragraphs we discussed the government control over the private enterprises with respect to the prices of locally produced and consumed products, export products and hotel accommodation services. However, price control by the government is not unique to the Sudan as a developing country. Instead, there is evidence that price control by governments has been witnessed by other developing as well as developed countries. In the UK, for instance, the labour government had introduced the Price Commission in 1973 for this purpose, though abolished later on when the Conservative government assumed power in 1979 (Karim, 1981). Similar practices are witnessed in Norway (Dill, 1958). In Iraq, the government has established the

Price Commission to fix the prices in the country (Saleem, 1981). It is not our concern here to debate the advantages and disadvantages of price control by governments. Instead, our main emphasis here is the discussion of the implications of the price control by government for the level of sophistication of management accounting techniques and the role of the controllership function in the private enterprises.

From our discussion in Chapter 6, it was beyond doubt that the requirements of the various price regulations enacted by the government and the government bodies involved in price-setting to compile cost data when applying for price increases, have dramatically encouraged most of the private enterprises to establish their own cost accumulation systems. On the other hand, the fact that the individual private enterprises are vulnerable to cost investigation by the Industrial Costs and Pricing Administration has increased the awareness of the private enterprises of the importance of establishing their own highly sophisticated cost accounting systems to help provide accurate and reliable cost data to stand this investigation. Not only that, but the price control by the government has even increased the cost-consciousness of the small businesses as we have seen in the case of the first food company and the second hotel. In the case of the first food company this cost-consciousness has led the company to establish a separate costing department to collect cost data even though there is no cost accounting system in the company.

On the other hand, price control by government has dramatically increased the importance of the role of the controllership function in internal reporting in the private

enterprises. Therefore, the fact that all the private enterprises have to submit cost reports if their applications for price increases are to be considered by the government, has made the managers of the private enterprises attach high importance to the financial controllers in this respect. Accordingly, this has improved the standing of the financial controllers in these enterprises as the most influential manager in this strategic decision which directly affects the well-being of these enterprises.

Moreover, as these enterprises are usually subjected to investigation by the staff of the government controlling bodies, the financial controllers of these enterprises have been perceived as the right persons to defend the cost information and the interests of the whole enterprise. It is not surprising, therefore, to find that the controllership function in most of these private enterprises has played a key role in the pricing decision, which ranged from preparing the cost reports to defending them and convincing the government officials of the soundness of the enterprise claims for price increases. Accordingly, one could conclude that the requirements of the different government price regulations and the cost investigations conducted by the different government bodies involved in the price-fixing process, have significant and positive implications for the level of sophistication of management accounting techniques and the role of the controllership function in the private enterprises.

### 8.3 Government Control Over The Investment Programmes

Our investigations in both the public and private sector enterprises revealed that the government maintains control

over the investment programmes in both sectors. In the following paragraphs we will discuss the degree of government control over the investment decisions in each sector and its implications for the level of sophistication of management accounting techniques and the role of the controllership function in both the public and the private enterprises.

In the public sector enterprises, the government maintains full control throughout all the stages of the investment programmes including the initiation of the investment projects in line with the government long-term plans for economic and social development, conducting the feasibility studies and the procurement of the foreign finance to implement these investment programmes. Accordingly, all the investment projects in the public sector enterprises are initiated and carried out within the government long-term plans for economic and social development. These long-term plans show in detail the objectives of the overall plan and the sub-objectives of the main sectors of the economy, that is, industry, agriculture, transportation and communications and the social services, together with the projects to be implemented within each sector during the plan. The preparation of these long-term plans is the responsibility of the Department of Planning, of the Ministry of Finance and Economic Planning. The basic reason for government control over the investment programmes in the public enterprises is that the central government uses the investment programmes of the public enterprises as a vehicle for achieving its intended economic and social development goals as stipulated in the long-term plan. For

instance, the major objective of the six-year plan (1977/78 - 1982/83) is the realization of an accelerated growth rate in real per capita income vis a vis the growth of the national economy at an annual rate of 7.5% in constant prices. To do so, the six-year plan emphasized the role of the new investments in the public industrial sector in the regional development and the creation of new job opportunities in the rural areas. More specifically, the six-year plan determined the following objectives of the investment projects within the public industrial sector:

- Basing central development planning firmly on regional planning so as to ensure that development of programmes and projects reflect the potentialities and needs of every region. This would at the same time ensure balanced development within and between regions within a framework of regional specialization and complementarity,
- Insurance of a good and balanced distribution of investment over the different regions of the country so as to eliminate the sense of humiliation and backwardness common in some Sudanese regions,
- Developing industry as a complementary sector to agriculture, giving priority to agro-industries and import-substitution,
- Achievement of self-sufficiency in food stuffs and agricultural inputs. To achieve these objectives, most of the public textile and food factories were erected within this six-year plan. In the hotel sector, on the other hand, the six-year plan provided for the rehabilitation of the first hotel and the establishment of new hotels with a

view to increasing the accommodation facilities to accommodate the increasing number of expatriates working in the development projects and to boost the tourism industry in the country as a potential source of hard currency. On the other hand, the current investment programmes in the public enterprises are incorporated within the three-year plan (1984/85-1986/87). This medium-range plan contained no new projects, and instead concentrated on rehabilitating the existing projects to enable them to fully utilize their capacities. Thus, the public sugar and textile factories are to be rehabilitated within this programme.

Once the investment programmes of the public enterprises are incorporated in these long-term plans, the next step is to procure the finance necessary to implement these investment projects. It is worth mentioning that almost all the investment programmes in the public sector, especially in the manufacturing industry, are financed by means of foreign loans and grants from the friendly countries and some Arab and International funds. The country's need for the foreign aid arises mainly to fill the savings-investment gap and to obtain hard currency to import the production inputs including machinery, equipment and the foreign exports. At this stage, it is the responsibility of the Foreign Aid Administration of the Dept. of Planning to look for potential foreign financiers. To achieve this objective, the Project Preparation Unit (PPU) has to prepare the feasibility studies to convince potential foreign financiers of the viability of an investment project by means of a feasibility study as we discussed in detail in Chapter 7.

It is then the responsibility of the Dept. of Planning to allocate the annual budget appropriations to the investment programmes in the public enterprises in the Development Budget for the Economic and Social Development.

Finally, once the construction of these investment projects starts, it is the responsibility of the concerned branch corporation to follow-up the construction of the project through a follow-up team.

Thus, the previous discussion on the government control over the investment programmes in the public enterprises showed that the investment programmes are initiated, financed and implemented within the overall government long-term plans. These long-term plans are prepared to achieve the macroeconomic goals of the government in accelerating economic and social development in the country. Consequently, this fact has a direct impact on the organization goals pursued by these enterprises as perceived by their managers. This in turn has a negative implication for the level of sophistication of management accounting techniques and the role of the controllership function in the public enterprises. The full discussion on the impact of the organization goals on the level of sophistication of management accounting techniques and the role of the controllership function in the public enterprises is to be addressed in Chapter 9. On the other hand, given the situation where the individual public enterprises have no say in the investment decision, especially the rehabilitation projects, the question of using the modern capital budgeting techniques in the individual public enterprises simply does not exist. Similarly, the fact that the government has established the PPU to conduct the feasibility studies of



investment decisions has eradicated the controller's role in making these investment projects. These findings, therefore, enable us to conclude that while government control over the investment programmes in the public enterprises has facilitated the execution of the government macroeconomic policies and ensured the goal congruence of these investment programmes in the economic and social development of the country, it is not without negative implications for the level of sophistication of management accounting techniques and the role of the controllership function in these public enterprises.

In the private sector enterprises, on the other hand, the government control over the investment programmes has been established by virtue of the Encouragement of Investment Act of 1980, which was issued by the Ministry of Finance and Economic Planning. The Act created a special government body known as the Bureau of Investment of the Ministry of Finance to assume control over the investment proposals of the private sector. Thus, among other functions, the Act defined the objective of the Bureau as "To consider applications for licence, feasibility studies and any other applications submitted by the investor and to make the necessary studies and enquiries about them so as to help investors and enable the authorities concerned to make a recommendation or decision with respect thereto." Accordingly, all the private enterprises have to submit their investment proposals in the different industrial, agricultural and service sectors to the Bureau of Investment for consideration. This applies equally to the new investment projects, expansion projects, and the replacement and modernization projects.

The process of the government control over the investment programmes in the private enterprises could be described as follows. In the first step the private enterprises send their applications of the investment proposals to the Bureau of Investment. The application must contain a narrative description of the proposed investment projects, a bank statement certifying the financial ability of the applicant to carry out the project, and a tax identity card. Above all and most important, the application must contain a proper feasibility study for the investment project especially when it is a new project or of an expansionary nature. This feasibility study is a prerequisite if the proposed investment project is to be considered at all by the Bureau of Investment. Chapter three of the Encouragement of Investment Act of 1980 has emphasized this point when it stated that "Privileges or facilities established by this Act shall only be granted after a technical economic feasibility study for the project has been submitted". These feasibility studies could be prepared by either foreign or local consultancy firms, provided that the latter is a registered firm. Additionally, it could be prepared by individuals provided that they include their qualifications in the feasibility report.

Upon the receipt of this application, the Bureau then considers the investment project which includes the assessment of the feasibility report itself, and then sends its recommendations regarding the acceptance or rejection of the investment project to the Minister of Finance and Economic Planning, who makes the final decision. It is worth mentioning that the approval of the investment project

is not made in a rubber stamp fashion, especially in the industrial sector. This is because not every application for a new industrial investment project will be successfully approved by the Minister of Finance, as more licences approved means more claims on the foreign exchange resources in which the country faces an acute shortage. This in turn means that a successful applicant will have to compete with others, old and new, for a share in the limited foreign exchange budget designed for the manufacturing industry. It is the nature of the manufacturing industries in Sudan, though meant to be import-substitution, to be heavily dependent on the importation of foreign equipment and raw materials, and consequently on the foreign exchange available. Upon the approval of the investment project, the private enterprise claims the privileges and facilities stipulated in the Encouragement of Investment Act of 1980, which mainly include a five-year exemption from the business profit tax, exemption from the customs and import duties, allotment of land necessary for the project, reduction of electricity and transport costs and protection of the project products.

To conclude this discussion on the government control over the investment programmes in the private sector, we discuss its implications for the level of sophistication of management accounting techniques and the role of the controllership function in these enterprises. It is quite evident from this discussion that the requirements of the Encouragement of Investment Act and the insistence of the Bureau of Investment on preparing a feasibility study as a condition of considering the investment proposals of the

private enterprises has definitely encouraged the private enterprises which made investment decisions to use some of the capital budgeting techniques to evaluate the investment alternatives. Though some of the private enterprises which made investment decisions used the crude method of capital budgeting, that is, the payback period, nevertheless, this by itself is an indication of the management's awareness of the usefulness of these management accounting techniques in handling such managerial problems. This is exceptionally important as the use of such modern management accounting techniques is urgently required in the developing countries which are characterized by scarce resources. This conclusion could be inferred from the fact that some private enterprises even decided to conduct more rigorous analysis for their investment projects by referring them to foreign consultants.

Additionally, the requirements of the Act has directed the management's attention to the potential that accountants and accounting data could provide in making the investment decisions. It would appear then that managers did not only ask the financial controllers to conduct special accounting reports to help them decide on the feasible projects, but they even asked them to explain the contents of these feasibility projects to help them present their case properly before the Bureau of Investment. This in turn has significantly improved the image of accountants before the management of these enterprises because of their vital role in any prospective investment opportunities in these enterprises. Consequently, one may conclude that the enactment of the government investment regulations and the creation of the government bodies to control the investment

programmes in the country, has advanced the level of sophistication of management accounting techniques and the role of the controllership function in the private enterprises.

#### 8.4 Government Control Over The Budgeting Process

The approval of the budget is another area on which the degree of government control varies between the public and the private sector enterprises. This section is centred around this issue together with its impact on the level of sophistication of management accounting techniques and the role of the controllership function in both sectors.

In the public enterprises, we have already discussed how the budget of the public enterprises is linked to the state budget in terms of its structure and range. However, the budgetary links between the public enterprises and the government go a bit further to include the approval of the budget itself. Generally speaking, the preparation of the budget in the public enterprises follows a general and structured pattern. This process starts when the Budget Administration of the Ministry of Finance and Economic Planning sends the public enterprises a several page letter showing the specific objectives which the state budget is pursuing for the new financial year, and the broad and specific guidelines that are to govern the estimation of the budget proposals. For instance, the recent letter issued by the Budget Administration started as follows "This financial year represents the first financial year

after the popular uprising (April 1985). Therefore, the budget proposals have got to be the first step towards the real economic reform and the foundation on which the programmes of reform are to be based." The letter then outlined the major objectives of the budget proposals as follows:-

1. Self-dependence by increasing real revenues, the optimum utilization of the available resources and to significantly reduce public expenditure,
2. To reduce dependence on the banking system to finance public expenditure (deficit financing) and to depend on the real revenues to fight inflation and reduce its rates, and
3. To authorize the Ministry of Finance and Economic Planning to assume complete control over public money with a view to achieving effective economic and financial control on the public revenues and expenditure at the levels of the central government, the regional government, public corporations and the public sector units, that is, the public enterprises.

To achieve these objectives, the letter then specified a series of measures with respect to the different expenditure chapters and the revenues. For instance, the expenditures of Chapter One should be the same as the previous year without creating any new jobs, the expenditures of Chapter Two should be reduced by 15% from the level of the previous year, and in Chapter Three no new small development projects are to be proposed. Similarly, the letter emphasized the importance of proper estimation of the revenues for the achievement of the government economic and fiscal policies. This is because the public revenues represent the foundation stone of the public budget and any shortage on this side means the failure to

achieve the intended objectives. Moreover, failure to collect the estimated revenues means inability of the state to finance the budget expenditure programme, and consequently indulging in a new series of economic and fiscal policies (deficit financing) to deal with this position.

Upon receipt of this letter, the managers of the different departments in the public enterprises meet together to discuss the letter itself, and then act accordingly. In the next step then the managers of the different departments send their budget estimates to the financial controllers of these enterprises who in turn put these estimates together in one budget according to the budget classification discussed in Chapter 6. Following this step the managers of the different departments meet again to discuss and pass the budget estimates in their final form. After passing these budget estimates at the public enterprises level, the financial controllers in the public manufacturing sector send a copy of their budget proposal to their respective branch corporations and another copy to the Budget Administration of the Ministry of Finance. The financial controllers of the two hotels send their budget estimates to the Hotels and Tourism Corporation, where all the budget proposals of the public hotels are consolidated in one budget for the corporation as a whole.

In the next step both the general managers and the financial controllers of the manufacturing companies and the general manager and the financial controller of the

Hotels and Tourism Corporation go to the Budget Administration of the Public Corporations, which is part of the Budget Administration, to discuss their budget proposals. It is worth mentioning that at this stage the budget approval is not made in a rubber stamp fashion. Instead, it is quite normal to subject the expenditure side of the budget to severe cuts in line with the instructions of the Budget Administration referred to earlier. The following statements by some financial controllers and general managers of the public enterprises are indicative.

"We discuss our budget proposals with some government officials who are not qualified and whose primary concern is to carry out the instructions of the Minister of Finance."

"The discussion of the budget proposals is not scientific, because the government officials are keen to reduce expenditure."

"There are always cuts in our budget proposals, especially in the last years because of the austerity policy in the country. The government officials decide in advance that our budget is to be reduced by a certain percentage. For instance, in one year our budget is reduced by  $7\frac{1}{2}\%$  according to a presidential decree."

"No, it is not that easy. Sometimes we quarrel with the government staff, and the approval of the budget proposals may be delayed for another two or three days."

For cross-checking purposes, we asked the government officials in the Budget Administration about the allegations of the financial controllers of the public enterprises that the Budget Administration is only concerned about carrying out the instructions of the Ministry of Finance to cut the budget expenditure by a certain percentage. The government officials in the Budget Administration confirmed the comments of the financial controllers on the basis that, as part of the Ministry of Finance, they have to. Two of them made it clear that:



"In the state budget we are very concerned about expenditure, revenues and the difference between them. This applies equally to the smallest factory or any government unit."

"Our job in this administration (Budget Administration) is to make sure that the economic policies issued by the Ministry of Finance have been adhered to in preparing the budget, and this is a general policy connected with the country's economy. The reduction in the budget expenditure usually occurs in the case of adopting a public policy such as the austerity policy in the last three years."

Accordingly, therefore, the budget proposals of the public enterprises are usually subject to severe expenditure cuts. For instance, the expenditure side of Chapter Two has been reduced by 15% this year in conformity with the instructions of the Minister of Finance. Moreover, some new recruitments proposed by some enterprises have been cancelled out by the Budget Administration. On the other hand, some expenditure items in the public hotels, having been significantly reduced, have expired during the first three months of the financial year though they are supposed to last for the rest of the financial year. Not only that, but the government may reduce the budgets of the public enterprises even after being approved depending on the actual performance of the state budget. For instance, this year all the public enterprises are required to reduce their expenditure in Chapter Two by 10%, so that the government could increase its revenues and meet the extra expenditure in Chapter One which emerged as a result of new government labour regulations which increased the minimum wage level to LS60.

To fight the inevitable expenditure cuts in the budget proposals, the managers and the financial controllers of the public sector enterprises have developed their own ways

to reduce its effects. One way is to play around the government financial statutes by transferring money from one budget item to another, though it is illegal. For instance some financial controllers propose some expenditures for entertainment of the employees or guest expenses and after being approved by the Budget Administration they use them to pay for other expenditures such as salaries and raw materials. However, the most important means to reduce the effects of the potential expenditure cuts is to build huge budgetary slack. The following statements by the financial controllers, which are typical of many, are illustrative.

"Yes, of course, we usually add expenditure margins not only because the Ministry of Finance will reduce our expenditure, but also to provide for the expected increase in the inflation rates throughout the financial year."

"This depends on the persons with whom you discuss your budget in the Budget Administration. Some of them are logical and ask for the invoices and others just reduce the expenditures. Generally speaking, the discussion is not scientific. For this reason, if we need Ls15,000 in a certain budget item, we estimate Ls20,000 so that we will be in the safeside when our expenditure proposals are cut."

and that:

"It is quite usual that the government officials reduce our estimates and therefore we increase our estimates. For instance if the budget item of maintenance needs Ls6,000 we propose Ls8,000."

Finally, once being approved by the Budget Administration the budgets of the public enterprises are incorporated in the overall state budget in the way we discussed in Chapter 6. The state budget is then presented by the Minister of Finance before the People's Assembly. Once approved by the People's Assembly, which does not involve any cuts, the Budget Administration then notifies the public enterprises as a signal of executing the budget. The Budget Administr-

ation emphasizes the necessity of operating within the budget, and both the financial controllers and the general managers of these enterprises are legally liable if they exceed their budgets. However, over and above this, the authority to spend some budget expenditure items in the hotel industry is centralized in the Hotels and Tourism Corporation. These include two budget items: advertising and the bonus. Therefore, before authorizing any payments from these expenditure items, the financial controllers of these hotels have to ask the permission of the Corporation first.

It is quite evident, therefore, that the government maintains full control over the budgeting process in the public sector enterprises. This fact is not without negative implications for the level of sophistication of management accounting techniques and the role of the controllership function in these enterprises. Consequently, the annual budget, though a very basic cost accounting technique that could be used for planning and control and performance evaluation purposes, has been reduced in the public enterprises to a tool for carrying out the government economic and fiscal policies to curb public expenditure and eliminate deficit financing and consequently fight inflation in the country. Furthermore, the tight budget approved by the government has hampered the application of some management accounting techniques in some public enterprises such as the use of computers in the textile companies. On the other hand, it is beyond doubt that government control over the budgeting process in the public enterprises has undermined the role of the controllership function in these

enterprises in many ways. First of all, instead of establishing, administering and co-ordinating an adequate plan including profit planning, programmes for capital investment and financing, sales forecasts, expense budgets and cost standards, the role of the controllership function in this respect has been reduced to carrying out the instructions of the Ministry of Finance in establishing a budget that serves and fits into the objectives of the economic and fiscal policies of the government, to the complete disregard of the needs and nature of the public enterprises.

On the other hand, in line with the importance of these budgets to the achievement of the objectives of the government economic and fiscal policies, the controllership function in the public enterprises is entrusted with the responsibility of safeguarding the execution of the budget. As this is legally binding, the controllership function in the public enterprises have committed lots of resources in terms of personnel and time to secure the execution of the budget as approved by the Budget Administration. This in turn has distracted the attention of the controllership function in these enterprises from performing their major role of reporting and interpreting the results of operations to the different management levels. On the other hand, the linkage of the budgets of the public enterprises to the state budget has created many complications for the controllership function in these enterprises. The approval of the budgets of the public enterprises, as we have already pointed out, requires that both the financial controllers and the general managers of these enterprises travel to the

capital (Khartoum) to meet the government officials and defend their budget estimates. One could not imagine the time spent by managers and financial controllers to do this job in a large country like Sudan where public enterprises are geographically dispersed throughout the country and where the modern means of transportation and communications are very poor. This situation is further aggravated by the fact that the Budget Administration may ask for invoices to convince them about the accuracy of their budget proposals. Additionally, the situation is worsened by the fact that any budget excess has to be permitted by the Budget Administration. However, operating within the approved budget is virtually impossible as a result of the turbulent nature of the Sudanese economy which is characterized by frequent currency devaluation and ever-increasing inflation rates. Consequently, the financial controllers and general managers of these enterprises have to travel frequently to the capital to ask permission to exceed the budgeted expenditure.

This equally applies to the public enterprises located in the capital which have to contact the Budget Administration for the same purpose. In addition to this, the financial controllers and the general managers of the public hotels have to ask the permission of the Hotels and Tourism Corporation to spend from some of the centralized budget items like advertising. It is not surprising, therefore, that the researcher met many financial controllers and general managers of these enterprises in their respective branch corporations in Khartoum. Furthermore, the general managers and the financial controllers of these enterprises

used to travel frequently and contact the general managers of their respective branch corporations to present the operating problems which their production units face. This situation emerges basically from the organization structure of the public enterprises, according to which it is the responsibility of the branch corporations to solve the problems of their operating units. On the whole therefore, this situation has created managers and financial controllers who are externally-oriented and who often find themselves chasing the government officials asking for permission to exceed the budget and asking them to solve their own operating problems. It is quite evident therefore that this situation has distracted the financial controllers from their main job of internal reporting to management and diverted the managers' attention from asking for and using accounting data to being externally-oriented.

Generally speaking, therefore, one could conclude that the government control over the budgeting process in the public enterprises, while perceived by the government as necessary to implement and achieve the objectives of its economic and fiscal policies in economic reform, has negatively affected the level of sophistication of management accounting techniques and the role of the controllership function in these enterprises.

In the private enterprises, on the other hand, when asked about the government control over their budgets, the financial controllers of at least four enterprises which have got formal budgets, that is, the two textile companies, the second food company and the first hotel, made it clear

that there are no budgetary links whatsoever between their enterprises and the government regarding the budget structure, the budget range and the budget approval. Instead, these enterprises have got their own budget formats and the budget is exclusively estimated and passed by the enterprise management. As we have already discussed the budget format and range in Chapter 6, we now turn to discuss the budget approval. Though the budgeting process may vary from one enterprise to another, nevertheless, and generally speaking, it follows this pattern. The budgeting process in these enterprises is fully described in their accounting policies and procedures manuals. Normally, the budget starts with the estimation of the production budget in the case of the manufacturing companies or the marketing plan which suggests the occupancy rate in the first hotel. On the basis of these estimates, the general managers of these private enterprises then issue an internal memorandum which forms the budget committees and urges the managers of the different departments to estimate and submit their budget proposals. In at least two enterprises, that is, the second textile company and the first hotel, these outlines go a little further to include some basic assumptions on the economic climate in Sudan regarding inflation and devaluation, the competitive structure of the market, the relations with the government on the issue of some privileges given by the Encouragement of Investment Act of 1980, and the trend of expenses in the enterprise.

In the next step, the managers of the individual departments estimate and submit their budget proposals to

the budget committees in these enterprises. The financial controllers of these enterprises, being key members of the budget committees, then bring the departmental estimates to a conclusion whereby the overall budget proposal of the enterprise is set up. Finally, the budget committees in these enterprises meet with the different managers of the departments to discuss and approve their budget estimates. Upon the approval of the overall budget of these enterprises, this represents 'a go ahead' indication to execute the budget.

However, in the first hotel, that is, Khartoum Hilton, the budgeting process continues beyond this point, as it is the general practice in the Hilton Hotels worldwide. After being approved by the budget committee at the hotel level, a copy of the budget proposal is then sent over to the Area Director of the Hilton International Company in Nairobi, who asks for more details on the budget. After being passed by the Area Director in Nairobi, he then puts forward the budget estimates to the Divisional Director of the Hilton International Company in Paris, who also asks for further information on the budget. After being passed and recommended by the Divisional Director in Paris, the budget proposal is finally sent to the headquarters of the Hilton International Company in New York, for final approval, which is merely a rubber stamp at this stage. After being passed by the headquarters in New York, the budget is then sent back to the first hotel for execution.

The fact that the government has no say in the budgeting process in the private enterprises has many positive implications for the level of sophistication of management



accounting techniques and the role of the controllership function in these enterprises. On the one hand, this meant that the private enterprises had got a free hand to depart from the conventional government type of budgeting, and consequently adopted different budget structures that suited their business nature. This in turn has enabled the private enterprises to use the budget as a basic cost accounting technique for planning and control, and above all, for performance evaluation purposes.

On the other hand, the lack of government control over the budgeting process in the private enterprises has advanced the role of the controllership function in these enterprises in many ways. Thus, the controllership function has played a vital role in establishing a sound budget which co-ordinates the production, sales, investment and profit activities of these enterprises, rather than just setting up a budget within the framework of the government economic and fiscal policies as in the case of the public enterprises. To help establish a sound budget, the role of the controllership function has even been extended to including providing information on the external environment such as inflation rates and devaluation. This reflects the awareness of the management of these enterprises of the importance of the role of the controllership function in linking these enterprises to their external environment. Similarly, the lack of budgetary links between these private enterprises and the government has released the financial controllers and the general managers from the pressure of chasing government officials for budget approval and exceeding the budget. This in turn made the financial controllers and managers

of these private enterprises internally-oriented and they concentrated on their main jobs of reporting to management and the use of accounting information for the different management purposes. It is worth mentioning that despite the lack of budgetary links between the other two private enterprises (the first food company and the second hotel) and the government, nevertheless, these two enterprises did not apply budgets. This could mainly be attributed to their small sizes (for full discussion of the impact of size, see Chapter 9). Generally speaking, therefore, one could conclude that the lack of budgetary links between the government and the private enterprises has improved the level of sophistication of management accounting techniques and the role of the controllership function in these enterprises.

#### 8.5 Government Control Over The Appointment and Training of The Management Staff

Another area on which the degree of government control varies between the private and the public sector enterprises is the appointment and training of the management staff. We first discuss the government control over the appointment and training of the management staff in the public enterprises. In the public manufacturing companies the authority to appoint, and consequently promote and dismiss the senior management, which includes the general managers and the heads of departments, is the entire authority of the Ministry of Industry which supervises the public manufacturing industries. The criteria for appointing the management staff in these companies include mainly the seniority

(education level) and the time spent by managers in the public service. These two criteria have given rise to the remarkable domination of engineers in the public manufacturing sector, as will be discussed in Chapter 10. The authority of the general managers of these manufacturing companies has been reduced to appointing workers and junior employees. In the public hotels, on the other hand, the authority to appoint the general managers of the hotel rests with the President of the Republic, after being nominated by the Hotels and Tourism Corporation. The appointment of the managers of the different departments in these hotels is the responsibility of the Hotels and Tourism Corporation. This authority has even been extended to the appointment of the employees and workers.

On the other hand, the training of the management staff and the manpower in the public enterprises is completely controlled by the government. The National Administration for Training, of the Council of Ministers, controls the training programmes of the Central and regional governments and the public enterprises. This process starts when the National Administration for Training works out the available training opportunities which include chances of internal training, the training chances within the integration between Sudan and Egypt, and the training opportunities obtained from the technical assistance provided by the friendly countries and the regional and international organizations. In the next step, the National Administration for Training sends a letter to all the government-owned units to estimate their training proposals. For instance,

the latest letter emphasized the government training policies which stop overseas training financed by the government, to concentrate on the short-term practical training and to reduce the academic training, and to emphasize the technical and vocational training rather than theoretical training. It is not surprising, therefore, to find that most of the managers received technical training in their areas of specialization rather than theoretical training in management or accounting, as will be discussed in Chapter 10.

Upon the receipt of the training plans (which show the proposed number of trainees, the area of training and the time required for training), the National Administration for Training discusses these training proposals with the concerned government bodies. For instance, the National Administration for Training discusses the training plans of the public manufacturing companies with the Industrial Training Administration of the Ministry of Industry, and the Personnel Administration of the Hotels and Tourism Corporation on behalf of the public hotels. At this stage, the training plans of the public enterprises are severely cut by the National Administration for Training. One government official in the Administration argued in this respect that:

"These units do not abide with our instructions and anyone would like to go abroad. We therefore adjust their budget proposals according to the available chances and sometimes we drop two thirds of their training plans."

Following this step, the National Administration for Training prepares the National Training Plan and submits it to the Council of Ministers for final approval. Upon the

approval of the National Training Plan by the Council of Ministers, the National Administration for Training then sends the government units their approved training plans to implement them.

This discussion revealed that the government maintains full control over the appointment and training of the management staff in the public sector enterprises. One negative implication of the government control over the appointment and training of the management staff of the public enterprises is their inability to make use of the foreign expertise by means of full management contracts or selective appointment of expatriates which could advance the level of sophistication of management accounting techniques and improve the role of the controllership function in these enterprises. This is because, by virtue of this government control over the management appointment, the public enterprises have not got the authority to engage in such arrangements unless it is the policy of the government. For instance, during the last three years, the Ministry of Industry was thinking of replacing the Sudanese management in the government-owned sugar factories with a foreign management on the basis of a full management contract. These government plans were dropped when the government was changed in April 1985. However, the government control over the appointment and training of management of the public enterprises made it clear that the government is "keeping a close eye" on the public enterprises in all aspects related to their administrative and financial affairs. This in turn tends to suggest that the negative implications of the tight government control could not only be traced

directly to the low level of sophistication of management accounting techniques and the role of the controllership function in the public enterprises, but could be traced indirectly as well through the organizational and managerial variables in the public enterprises which are adversely affected by this tight government control. The negative impact of the tight government control on the organizational and managerial variables in the public enterprises is the focus of Chapters 9 and 10 respectively.

In the private sector enterprises, on the other hand, our investigations tend to confirm that there is no government control whatsoever on the appointment and training of the management staff in these enterprises. The authority to appoint the senior management in the private enterprises varies between the manufacturing sector and the hotel sector. In the manufacturing sector the authority to appoint the senior management rests with the board of directors in the relatively big companies, that is, the two textile companies and the second food company. In the first food company, which is relatively small, the authority to appoint the senior management rests with the owner of the business, who is also the general manager. In the private hotel industry, on the other hand, the authority to appoint senior management varies from one hotel to another. In the first hotel (Khartoum Hilton) the authority to appoint the senior management rests with the Hilton International Company in New York. In the second hotel, which is relatively small, the authority to appoint the senior management rests with the owner and the general manager of the hotel.

Similarly, the management training is the sole responsibility of these enterprises. However, management attitudes towards training differ from one sector to another and from one enterprise to another. In the manufacturing sector, the two textile companies adopted positive attitudes towards management training and they have got proper training plans, which are of a short-term nature, (usually one-month term) with the local training institutes like the Management Development Centre (MDC) and the Sudan Academy for Administrative Sciences. These training sessions include preliminary discussions on the functions of management, finance, and the role of management accounting. In the two food companies, there are no proper training programmes on the basis that training is expensive. The personnel managers of these enterprises argued that:

"The training of management is very expensive and the private sector is not inclined to invest in this area"

"This company is operating on the basis of profit and loss and there is no overseas training plan. Training is restricted only to the short seminars and refreshment courses."

In private hotels, on the other hand, the emphasis put on training varies from one hotel to another. The first hotel attached higher importance to management training and it has a separate training office to make and execute the training plans and policies, which are designed in the same manner applicable to the Hilton International world-wide. Accordingly, the hotel adopts two types of training; on the job training inside the hotel and cross exposure training in the other Hilton Hotels world-wide. Additionally, the senior management of the hotel attends regular training programmes in the specialized training centres of the Hilton

International company such as the Career Development Institute (CDI) in New York and the European Training Centre in Basel. In the second hotel, the manager of the hotel has negative attitudes towards training. When asked about the training in the hotel, the personnel manager of the hotel argued:

"There is no training in the hotel, and we recruit the qualified personnel."

This discussion on the role of the government in appointing and training senior management in the private enterprises tends to confirm that the degree of government control in this respect is reduced to nothing. This fact is not without positive implications for the level of sophistication of management accounting techniques and the role of the controllership in at least some of the private enterprises. Therefore, the fact that the private enterprises have a free hand to appoint their senior management has encouraged some private enterprises, like the second textile company and the first hotel, to make use of Western expertise in managerial know-how to lay the platform for the application of the modern management accounting techniques and the principles of the role of the modern controllership function as some historical events in these enterprises tend to confirm. This may take place in the form of selective appointment of expatriates in some key positions or the appointment of a complete foreign management on the basis of a management contract, as we will discuss in more detail in Chapter 9.



#### 8.6 Government Control Over The Competitive Structure Of The Participating Industries

Finally, in conclusion to our discussion on the areas and the degree of government control over both the public and the private enterprises, we discuss government control over the competitive structure of the participating industries and its implications for the level of sophistication of management accounting techniques and the role of the controllership function in both public and private enterprises. Most management accounting researchers in the developing countries rush to the conclusion that the lack of competition in the developing countries has contributed to the low level of sophistication of the management accounting techniques and the role of accountants without even discussing how the lack of competition emerges (Kordi, 1979, Saleem, 1981, Rikabi, 1984). Therefore, to begin with, we first discuss the government economic policies towards the manufacturing and hotel industries in both sectors.

The government control over the competitive structure of the manufacturing companies which are of an import-substitution nature, was originally created by the 1974 Act of the Development and Encouragement of the Industrial Investment issued by the Ministry of Industry. Chapter 7 of this Act states that: "The Minister of Industry, after consulting the concerned ministers and taking into account the public interest, has to take the necessary steps to protect the local industrial production, taking into consideration its sufficiency as far as quantity, price and quality are concerned. These necessary steps include (a) limitation of the quantity of equivalent foreign imports or

close substitutes or banning them altogether, and (b) increasing the excise duties on equivalent foreign imports or close substitutes." This Act, therefore, lays the foundation for the full protection policy of the local industry against the competition of the foreign equivalent imports with a view to enabling the local manufacturing industry to flourish. The Act then identified three criteria for the full protection policy. The first criterion is sufficiency to supply the local market with a certain product. Failure to meet this criterion means that the Ministry of Commerce, Supply and Co-operation has to give licences to import the quantities of products that would fill in this gap. The second criterion is the quality of the locally produced and consumed products. The safeguard of this criterion is the responsibility of both the Industrial Research and Consultancy Centre and the Quality Control Administration of the Ministry of Industry. This criterion is not strictly adhered to in deciding whether or not a product is to be fully protected. This resulted in most cases in the low level of production quality, according to a report of a commission established by the Ministry of Industry to investigate the impact of the full protection policy on the locally produced and consumed products.

The third and most important criterion is the price of the local products compared to that of their equivalent imports. As we have already discussed in connection with government control over the prices of locally produced and consumed products, the Industrial Costs and Pricing Administration takes into consideration the price of the equiv-

alent imported products in deciding on the profit margin to be added to the actual cost of production and consequently the ex-factory price. Thus according to the 1974 Act, when the prices proposed by the local manufacturers are higher than the prices of the equivalent imported products, the profit margin to be added to the actual costs of production is 5%, which is a gesture to the local manufacturing companies to be more efficient and thereby reduce costs. On the other hand, if the proposed prices are lower than the landed price of the equivalent imports, then the profit margin to be added is 15%, to encourage more efficiency.

However, practically speaking, the Industrial Costs and Pricing Administration usually ignores this criterion when fixing the prices of the locally produced and consumed products and deciding on whether or not a product is to be fully protected. Instead, the Industrial Costs and Pricing Administration adds 15% as a profit margin for all the fully protected products irrespective of the prices of the equivalent imported products. Consequently, the prices of some of the locally produced and consumed products have doubled in comparison to the prices of their equivalent imported products. The Industrial Costs and Pricing Administration has justified this on the basis that some of the costs of production are entirely controlled by the government, such as determining the exchange rate of the US dollar according to which the costs of raw materials are to be calculated. This explicitly means that the Industrial Costs and Pricing Administration perceives these costs as uncontrollable for the manufacturing companies and this fact should be taken into consideration in the price-fixing decision.

However, the full protection policy which is officially adopted by the government according to the provisions of the 1974 Act, does not necessarily guarantee a complete ban on foreign imported products, though it should as the domestic manufacturing companies could produce sufficient quantities for the local consumption. One government official in the Ministry of Industry suggested that the full protection policy is violated because of the corruption in the Ministry of Commerce. Accordingly, licences to import products are produced irrespective of the full protection policy of the government. He stated that:

"The approval of the commercial licences in the Ministry of Commerce is influenced by pressures and techniques that override the public interests. For instance the government policy is to fully protect the locally produced sweets, but nevertheless you find Machintosh sweets everywhere in the market."

Similarly, when some general managers are asked about whether or not their products are fully protected, they responded negatively. Instead, they suggested that foreign products find their way into the country through smuggling despite the government policies of full protection. The following statements are suggestive.

"The government gives protection to some extent, but the imported sweets are smuggled from Europe and Kenya. Nevertheless, we can compete both price-wise and quality-wise."

"There is no protection though we asked the government. Last year large quantities of sweets are imported from Egypt, Kenya and England. People think that the imported products are better."

"The Ministry of Industry decided not to import any food stuffs, but they are smuggled through Port Sudan."

This discussion made it clear that the government has protected the local manufacturing industry with a view to

enabling it to flourish. After all, this full protection policy is not unique to the Sudan, as many developing countries tend to impose tough tariffs to discourage the flow of foreign goods (Pang, 1982). The government full protection policy has relieved the local manufacturing companies, both public and private, from foreign competition and created a less competitive market both price-wise and quality-wise. Consequently, though the full protection policy may serve the government economic development policy in industrialization, nevertheless, it is not without an expense in terms of the level of sophistication of management accounting techniques and the role of the controller-ship function in the Sudanese manufacturing industry.

Therefore, the government generosity to guarantee a 15% profit margin over and above the actual costs of production no matter how high they are, has significantly reduced the cost-consciousness of the management of these enterprises. Accordingly, no one company seemed to bother about efficiency as long as its profit margin is secured. Therefore, one could conclude that the government economic policy which guarantees import restrictions and a 15% profit margin on the basis of the actual costs of production rather than the standard costs of production, has induced inefficiency in these enterprises. This in turn has discouraged the managers of the manufacturing companies from applying the cost accounting techniques which are originally designed to advance efficiency in the manufacturing concerns. Therefore, this may justify our previous findings that almost all the manufacturing companies in both sectors did not apply rigorous standard

costing systems and the other related techniques like marginal costing and flexible budgets.

However, though these conclusions may coincide with the findings of other empirical studies on the effects of different types of competition on the level of sophistication of control systems (Khandawalla, 1959), nevertheless, these conclusions have got to be approached and interpreted carefully. This is because operating in a competitive environment does not necessarily guarantee by itself the application of advanced cost accounting systems and controllership function (Rosenzweig, 1981). On the other hand, it is always difficult to decide on the intensity of competition in a certain economy, and consequently, it is difficult to decide on the magnitude of its implications for the level of sophistication of management accounting techniques and the role of the controllership function in the sample companies. The reasons for this are two-fold. First, it is difficult to measure the intensity of competition (Khandawalla, 1977). Second, the full protection policy adopted in the country enabled the import-substitution industries to flourish and this itself may have created competition between the domestic companies themselves. For instance, the government financial regulations applied in the public manufacturing companies have distinguished between the commodities which face competition and those which do not. Therefore, one may conclude that it would be pretty naive to overexaggerate and emphasize the negative impact of the less competitive environment on the level of sophistication of management accounting techniques and the role of the controllership function in the manufacturing

companies in the developing countries as most management accounting researchers used to do.

Chapters 6 and 7 produced good evidence that the level of sophistication of management accounting techniques and the role of the controllership function is higher in the private manufacturing companies than their counterparts in the public sector, though both sectors operate in the same less competitive environment. This finding, therefore, suggests that the impact of the less competitive environment is far less important. Instead, it tends to suggest that the degree of government control over both the public and the private sector enterprises in the other control areas is the most influential factor that has resulted in this difference in the level of sophistication of management accounting techniques and the role of the controllership function in the public and the private sector enterprises.

In the hotel industry, on the other hand, the government has no control whatsoever on the competitive structure of the hotel industry. Instead, the government economic policy is in favour of establishing more hotels by both the Sudanese nationals and foreigners. Foreign investors in particular are given the same privileges and facilities according to the 1980 Encouragement of Investment Act. This is meant to boost the tourism industry and increase the accommodation facilities. In fact, one of the major objectives of the Hotels and Tourism Corporation, as stated in its Warrant of Establishment is to encourage the local and foreign sources of finance to invest in the tourist services

sector and to establish hotels throughout the Sudan. Accordingly, many hotels, both public and private, have been established in the country during the last decade some of them are wholly-owned and managed by foreigners and some of them are only managed by foreigners. As we have already argued, in a country where the tourism industry is virtually non-existent, the major occupants of these classified hotels are businessmen. In addition to that, the severe economic problems facing the country, together with the other problems which we discussed in Chapter 7, the number of foreign businessmen has declined steadily during the last four years. This situation has created a competitive environment where the classified hotels compete both price-wise and quality-wise in the hotel services for the already declining number of foreign businessmen and the tiny fraction of the foreign tourists.

Therefore, though it is difficult to determine the intensity of the price competition, the statements of the general managers and financial controllers of both the public and the private hotels, it is evident that the different hotels in the same classification charge different room rates within the maximum hotel tariffs determined by the Hotels Control Administration with a view to competing. Thus, the public hotels responded to the price competition by significantly reducing their hotel tariffs to the extent that the first hotel, that is the Grand Hotel ( a five-star first class deluxe hotel) charged room rates which are lower than those charged by the first private hotel, that is, Khartoum Hilton (a four-star hotel). On the other hand, the first private hotel (Khartoum Hilton) takes into consideration



the room rates charged by the other four-star hotels as the major criterion to decide on the increase or the decrease in the room rates.

Nevertheless, there is no evidence that this price competition in the hotel industry has advanced the level of sophistication of management accounting techniques and the role of the controllership function in at least the two public hotels and the second private hotel, as we discussed in Chapters 6 and 7. This indicates clearly that there are some other important factors which are more influential on the level of sophistication of management accounting techniques and the role of the controllership function than price competition. On the other hand, it is very difficult to attribute the high level of sophistication of management accounting techniques and the role of the controllership function in the first hotel (Khartoum Hilton) to competition in the hotel industry. This is basically because of the foreign influence in the hotel as will be discussed in the next chapter. Therefore, these conclusions as well as the previous conclusions reached in connection with the manufacturing industries, tend to highlight the dangers of overestimation of the impact of the different types of competition on the level of sophistication of management accounting techniques and the role of the controllership function in the enterprises of the developing countries.

## 8.7 Concluding Remarks

In the previous paragraphs we discussed the degree of government control over both the public and the private

sector enterprises in a variety of decision areas. Thus, it is apparent that in the public sector enterprises, public ownership gives rise to the government's desire to tighten control to the extent that government control is inescapable and is extended to include financial and administrative excessive controls. Apparently, therefore, it is the government ownership that has created the intention to protect the public money and interests against theft and defalcations. To achieve this objective, the government has enacted the government financial regulations which are basically meant to tell managers of the public enterprises what they should do to safeguard the public money and to warn them that the government is keeping a close eye on them. It is quite evident, therefore, that these government financial regulations are designed to cover various aspects of the management accounting techniques and the role of the controllership function in the public enterprises. There is no doubt, therefore, that the comprehensive nature of these government financial regulations has paralysed the public enterprises.

On the other hand, public ownership has created the desire of the government to ensure goal congruence between the government and the public enterprises in various decision areas. Therefore, the investment decisions in the public enterprises are used as a vehicle to achieve the government macroeconomic goals of industrialization and job creation, the pricing decisions in the public enterprises are fixed with a view to reducing the cost of living to the consumer, the training in the public enterprises has to concentrate on practical training, and the budget of the

public enterprises should be set up in such a way as to reduce the public expenditure and deficit financing and fight inflation in the country. It is beyond doubt, therefore, that the government insistence on achieving goal congruence has reduced the public enterprises to captive tools that are used to carry out the government goals in these decision areas. It is quite clear, therefore, despite the fact that these public enterprises are meant to be separate organizations because of their nature, nevertheless, they are managed as government units which have to adhere to the government practices in every element.

Moreover, to tighten the government grip on the public enterprises the government has established its supervisory bodies, that is, the branch corporations to ensure the protection of the public interests and money and the goal congruence. Not only that, but the public enterprises are tightly linked to the government apparatus right to the ministerial and presidential levels. It is quite evident that the government has created the branch corporations mainly to assert control, without even bothering about defining the accountability of the public enterprises and corporations. This situation has resulted in responsibility diffusion on the part of managers in the public enterprises level right through the branch corporations level. On the other hand, the multiplicity of the government bodies created to assume control over various aspects in the public enterprises has complicated the problems of authority-responsibility relations and abolished the managerial autonomy of the public enterprises altogether.

Therefore, though the government control over the public sector enterprises might be inescapable and inevitable to secure the public interest and ensure goal congruence as is the case in many other developing countries, it is achieved at the expense of the low level of sophistication of management accounting techniques and the role of the controllership function in these enterprises. As we have already discussed in detail, the tight government control on these government-owned enterprises has a direct and negative impact on the level of sophistication of management accounting techniques and the role of the controllership function in these enterprises. Not only that, but government control has even proved to have an indirect effect on the level of sophistication of management accounting techniques and the role of the controllership function by negatively affecting the other organizational and managerial factors in the public enterprises. It is quite evident therefore that the tight government control on the public enterprises is the most important and influential factor that has directly and indirectly contributed to the low level of sophistication of management accounting techniques and the role of the controllership function in these enterprises.

In the private sector enterprises, on the other hand, private ownership has released the private enterprises from the tight government control which could have been justified on the basis of public ownership. Therefore, the private enterprises have enjoyed greater managerial autonomy as the government left them to mind their own business. This 'letting go' attitude adopted by the government towards

the private enterprises has freed the private enterprises from the government financial regulations and has enabled them to pursue their own goals in investment, pricing, appointment and training of management and budgeting, which are not necessarily congruent with the government goals in these decision areas. Therefore, private ownership has held the government back from intervening in these private enterprises on the basis of protecting public ownership and ensuring goal congruence. This in turn has enabled the private enterprises to be run on a direct management basis rather than being subordinated to any other government supervisory bodies. All this in turn has enabled the private enterprises to escape the negative impact of the tight government control on the other organizational and managerial variables in these enterprises.

However, like some other developing as well as other developed countries, no one could expect a complete "laissez faire" attitude towards the private enterprises. Consequently, the government has stepped in and assumed control over two important decision areas, that is, pricing and investment programmes, which are justified on the basis of the developing nature of the Sudanese economy. Nevertheless, this fact does not significantly affect managerial autonomy as long as these decisions originate and receive rigorous analysis at the organization's level. In fact, the requirements of the various government regulations in these decision areas and the government bodies established to handle these decisions have advanced the level of sophistication of management accounting techniques and the role of the controllership function in these enterprises. On the

other hand, the government objectives in industrialization and accelerating economic development have made the government protect local manufacturing industry which has given rise to the less competitive environment in the country. However, the implications of this less competitive structure for the level of sophistication of management accounting techniques and the role of the controllership function in the manufacturing companies should not be overexaggerated. On the whole, therefore, the findings of this chapter tend to confirm the third research hypothesis which states that the degree of government control, being tight on the public enterprises and loose on the private enterprises, is the most influential factor that has contributed significantly to the low level of sophistication of management accounting techniques and the role of the controllership function in the public enterprises when compared to their counterparts in the private enterprises.

However, the fact that government control is loose on the private sector enterprises does not necessarily guarantee a high level of sophistication of management accounting techniques and controllers' involvement in all the private enterprises. Thus, even being subjected to loose government control, two private enterprises (the first food company and the second hotel) have got less sophisticated management accounting techniques and their controllers are less involved in management. Therefore, one could argue that loose government control is one of many factors that have a positive impact on the role of accounting and accountants in the private enterprises.

The findings of this chapter have significant implications for the empirical management accounting research in the developing countries. This is because this chapter identifies government control as a contingent variable which affects the role of management accounting and accountants in the management of the enterprises of the developing nations. Taking the Sudanese case and viewed within the public-private ownership dichotomy, our findings tend to suggest that the degree of government control over the public and the private enterprises is the most influential variable that gave rise to the difference in the role of management accounting and accountants between the public and the private enterprises as reported in Chapters 6 and 7. The findings of this study, therefore, tend to suggest that government control, which significantly varies between the public and the private enterprises, is a distinctive feature of the environment within which the Sudanese enterprises operate. Consequently, one could expect that government control could be a distinctive feature of the environments of the enterprises of the other developing countries with a similar impact on the role of management accounting and accountants. Certainly, this is a promising potential research area.

Having said that, one more point has to be made. It is quite evident from the previous discussion that the different degrees of government control over the public and the private enterprises could be attributed to the difference in ownership. Apparently, therefore, public ownership gives the government the 'licence' to retain the authority to appoint the management staff of its enterprises. Not only

that, but public ownership has forced the government to step in and lay down rigorous financial regulations as an inevitable measure to "protect the public interest and money against theft and defalcations". Finally, public ownership has once more enabled the government to use the public enterprises as a vehicle to implement its economic and social policies and ensure the goal congruence between these government policies and some of the decision areas in the public enterprises like pricing, investment and budgeting.

In the private enterprises, on the other hand, the government control stimulated by public ownership, simply does not exist. Instead, the government control over the private enterprises is confined to some decision areas and is solely induced by the developing nature of the Sudanese economy. Thus, the restrictions on imports are meant to allow the infant manufacturing industry to flourish, the price control by the government emerges from the existence of the sellers' market, and the government control over investment decisions is motivated by the shortage of hard currency. In conclusion, the government loose control over the private enterprises emerges largely from its capacity as a regulator and a policy-maker rather than as an owner.



## Chapter 9

### The Organizational Factors And The Level Of Sophistication Of Management Accounting Techniques And The Role Of The Controllership Function In The Public And Private Enterprises

The analysis of the first two case studies in the first stage of the research has identified some organizational variables which were found to be directly connected with the different levels of sophistication of management accounting techniques and the role of the controllership functions in the two case studies. In Chapter 5 we discussed the theoretical association between the level of sophistication of management accounting techniques and the controllership function and these organizational variables as suggested by the modern contingency theory of the management accounting systems. In this chapter, we will investigate whether or not the difference in the level of sophistication of management accounting techniques and the role of the controllership function between the public and private enterprises, as reported in Chapters 6 and 7, could be attributed to any difference in some organizational variables in the two sectors as hypothesized in the first stage of the research. In this regard, four organizational variables are to be investigated, including the organization goals, the organization structure, the organization size and the organization history. The analysis of this chapter is based on the responses of the managers and some government officials to the questions of the interview guidelines in Sections D, E, F, G respectively (for further details see the interview guidelines in Appendix A).

#### 9.1 The Organization Goals

The link between the organization goals and the level of sophistication of management accounting techniques and the role of the controllership function in organizations is widely recognized in the contingency

theory of management accounting systems to the extent that it is almost taken for granted. Caplan (1968), for instance, concluded in an empirical investigation on the association of the organization goals and the role of management accounting that both accountants and managers tended to relate the role of management accounting to the idea of economic profit maximization, and consequently there is a strong emphasis on the use of accounting as an instrument in the process of reducing and controlling costs. He argues that:

"The management accounting process is viewed by both managers and management accountants as primarily (but not exclusively) a device for cost control and that this activity is considered to be a very important aspect of organization activity in terms of achieving maximum (or satisfactory) profits".

Similarly, Otley (1980) makes it quite clear that:

"The design of any planning and control system is situationally specific in that it depends upon the specific objectives to be achieved by the planning and control system in the context of organizational objectives".

Research-wise, however, very little has been done to confirm or refute these theoretical arguments. In this study, we investigate whether or not there is a difference in the principal organization goals pursued by the public and the private enterprises and the implications of this for the level of sophistication of management accounting techniques and the role of the controllership function in the two sectors.

#### 9.1.1 The Organization Goals Of The Public Enterprises

We first start our discussion on the organization goals of the public enterprises by the public manufacturing sector. Our discussion will solicit the opinions of the members of the 'dominant coalition'. This will present the views of the different authority levels in the organization structure of these enterprises, including the government officials of the Ministry of Industry, the general managers of the public corporations and the general managers of the individual public

manufacturing companies. Thus, in the Ministry of Industry, the researcher interviewed the government officials supervising the public industrial sector. When asked about what sort of achievement would make him think that the individual public manufacturing companies have had a successful year, the government official in the Ministry of Industry mentioned the following success criteria:

- When these manufacturing companies are able to finance their operations in the sense that their revenues are not less than their expenditures (i.e. breaking even),
- When the goods produced by those public manufacturing companies are locally acceptable both price-wise and quality-wise, and are able to compete in the international market against the foreign products, and
- When these public manufacturing companies contribute to the community development especially in the rural areas, in the sense that they improve the standards of living of the employees in particular and the inhabitants of the area in general.

Put another way for cross-checking purposes, we asked the government official in the Ministry of Industry about his opinion on the principal organization goal pursued by the public manufacturing companies from among some key success factors. The government official stressed the second key success factor of achieving the goals of the economic and social development policy of the government. In particular, he pointed out three areas which are almost identical to the ones he mentioned above as success indicators. According to the government official, these goals are as follows:

- The development of the available natural resources in the country through the industrial sector, the development of the Sudanese economy in general, and reaching self-sufficiency in strategic goods,

- To export goods which would help increase the country's proceeds from hard currency, and
- To develop the rural community and to create jobs.

To come straight to the point, we asked the government official whether or not profitability is the principal organizational goal of the public manufacturing companies. He strongly rejected this idea, citing an example of a profitable manufacturing factory in the private sector. He stated that:

"Of course no!! Profitability is not the principal goal of the public sector factories, but it is so for the private sector. For instance, the (X) factory (an export oriented factory) is very profitable, but it does not serve the goals of the public industrial sector, because its cost of production is very high and it is unable to compete in the international market, the quality of its products are less than required, and its prices are triple those of the equivalent foreign products. Does this mean that this factory is successful? Of course not and that is why we lifted the protection policy from this factory".

At the public corporations level, the general managers of both the Public Corporation for the Textile Industries and the Food Industries Corporation were asked about the principal goals of the public manufacturing companies managed by the two corporations. The general manager of the Textile Industries Corporation stated that:

"Nearly all the factories were established within the framework of rural development and were located in some sites where the factors of success were not available, and the goal was to achieve social development and to help the citizens make living. When these factories incurred huge losses and posed a burden on the public treasury, the goal of these factories was changed to profit-making and the economic goal became the major criterion, and at least we are supposed to cover our expenditures".

The general manager of the Food Industries Corporation emphasized the pursuit of the goals of the government economic and social development policies and made the following comparison between the state of development of a city in Northern Sudan before and after establishing two government-owned food canning factories. He stated that:

"The government factories were mainly established to develop the

rural areas, and they achieved this goal. If you compare any region after the establishment of a factory, you will find that there is significant social development and that the per capita income has increased. In Kariema (Northern Sudan) for instance, before the establishment of the food canning factories, the village was very small, the people used to emigrate to Khartoum (the capital) for work, and there was no hospital or electricity services. If you compare it today, you will find three higher secondary schools and many elementary and general secondary schools, the electricity and water services are available, the health centre is changed to a hospital and there are now four branches for the commercial banks. All this is achieved by virtue of establishing the two government factories in the area".

Finally, to have a complete picture of the organization goals pursued by the public manufacturing companies, we asked the general managers of these enterprises about the principal goal of their organizations. The following responses are typical of many.

"The goal of the factory in principle is to achieve the industrial regional development in the sense of establishing factories in the region for social and economic development and to curb emigration to Khartoum by providing job opportunities. Our success criteria are increasing production and profit-making".

"The goal of the factory when established was basically to provide jobs for the citizens and to reduce emigration to the major cities and to develop the rural areas. All the six textile factories were distributed on a purely political basis, and the goal was social profitability rather than economic profitability".

"Our goal in the beginning is to contribute to the public treasury through the payment of excise duties, second to reduce unemployment, third to produce top quality goods, and fourth not to charge the consumer higher prices".

and that:

"The major goal of the factory is to contribute to the national development in the country. I would be delighted when my factory operates for three shifts a day thereby utilizing the whole capacity. In my opinion, the objectives of industrialization is a very strategic one in the sense that you have to achieve self-sufficiency in the country for the commodity (i.e. sweets)".

The previous statements of the government officials in the Ministry of Industry and the general managers of the public corporations and the individual public manufacturing companies, which are almost identical to each other, seem to demonstrate very well the principal organization goals pursued by the government-owned factories. Thus, it is

beyond doubt that the erection of the government-owned factories is basically meant to carry out the goals of the economic and social development policies of the government through industrialization. This drive to industrialize is seen by many developing countries, and Sudan is not an exceptional case, as a fundamental goal which would lead to a more rapid rate of economic growth and would accelerate the economic and social development. To achieve the goals of the industrialization policies, the governments in the country have established a lot of factories within the long-term economic and social development plans, as we discussed in Chapter 7, since independence, including the sugar, food and textile factories. It is not surprising, therefore, that the government officials in the Ministry of Industry and the public corporations and the general managers of the individual manufacturing companies highlighted the same goals of the six year plan (77/78-82/83) in the industrial sector. Undoubtedly, therefore, the responses of the general managers of the individual manufacturing companies when asked about the principal goal of their organizations tend to suggest that they "got the message right" as the organization goals perceived by the general managers of the government-owned factories tend to coincide with those identified by the government in its economic and social development plans.

Generally speaking, therefore, one could conclude that the principal organization goal of the public manufacturing sector is identical to that of the government economic and social development policies in industrializing the country and that the government-owned factories are used as vehicles to implement these policies. Thus, it is not surprising that all the government-owned factories are striving to maximize production and help reach self-sufficiency in the basic consumer goods with a view to reducing the drain on hard currency which could have

been spent on importing these goods. Similarly, as some government officials put it explicitly, the erection of a government-owned factory boosts the chances of social development. Consequently, the erection of a government-owned factory means the establishment of hospitals, schools and sports and social clubs. Additionally, the establishment of a government-owned factory means creating huge job opportunities to minimize unemployment and stop the internal emigration to the capital. The emphasis of creating jobs has led to what is known as "disguised unemployment" in all the public manufacturing companies. Not only that, but the emphasis on the role of the public sector as the main employer has opened the door to the political appointments, such as the employment of some workers who were expelled from Libya in some of the government-owned food factories.

Additionally, these statements reflect the multiplicity of the organization goals as perceived by the members of the dominant coalition in the public manufacturing companies. It is quite interesting, therefore, to notice that some general managers, particularly in the textile companies, tend to recognize the commercial goals of achieving reasonable profits amidst the other social and political goals. This in turn suggests confusion on the part of general managers towards the economic goals and that profit-making has not been emphasized as the major organization goal to be pursued by the public manufacturing companies. Interpreted in another way, the multiplicity of the organization goals pursued by the government-owned factories gives rise to what could be termed as 'dualism' of the organization goals whereby these companies want to achieve concurrently both the political and social goals on one hand, and the economic goals on the other hand. This dualism of the organization goals of the public manufacturing companies raises another question about whether or not it is possible

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to reconcile the political and social goals with those which are commercial. Practically speaking and from our previous findings, this is very difficult if not completely impossible. It would appear that the political and social goals could be achieved only at the expense of the commercial goals. It is beyond doubt, therefore, that the public manufacturing companies significantly underpriced their products to achieve the political and social goals of reducing the cost of living to the public, but as a result of this they forgo the economic goal and instead sustained huge losses.

In fact, it is this difficulty in striking a balance between the political and social goals with those which are economic, which has led to the development of useful indicators that take into consideration the socio-political role of the public enterprises rather than just concentrating on economic profitability as a measure of performance of the public enterprises (Ramanadham, 1981, Turk, 1985). Therefore, it would appear that it is up to the government either to emphasize the political and social goals or the economic goals, but it is difficult to achieve both at the same time. After all, this difficulty in reconciling the political and social goals with the economic ones, seems to present itself in the public enterprises of the developing as well as the developed countries. In the UK, for instance, the one-year long pit strike seems to emerge as a result of this difficulty. The Coal Board on the one hand decided to close some pits on a purely economic basis, whereas the Miners' Union, on the other hand, rejected the pit closure plans as it meant job losses.

It is worth mentioning that the statement made by the general manager of the Public Corporation for the Textile Industries expressed intentions to emphasize the commercial goals in all the publicly-owned

textile factories. This statement in fact represents the new policies of the government which decided to run the public sector on a pure commercial basis. This step was started by changing the name of the Corporation to the Public Company for Spinning and Weaving Limited last February as a gesture towards commercialization. Though this company was registered under the 1925 Companies Act, this change is only symbolic. Whether these new policies will go ahead or not, and whether these policies will shift the emphasis from the socio-political goals to the commercial goals remains to be seen. After all, one could argue against any drastic change in the goal emphasis of the public industrial sector. This is basically because, despite these tendencies to commercialize the public industrial sector, one could still question as to who is going to play the role of the public sector in industrialization and rural development. This is particularly true in a developing country like Sudan where the public industrial sector played a pioneering role in entering the more risky manufacturing industries and thereby paving the way for the private sector. Similarly, one may not expect major change in the role of the public manufacturing sector in a developing country like Sudan which depends to a greater extent on the public manufacturing sector to accelerate economic development in the less developed regions of the country. This is because the private sector would not take risk and invest in some regions characterized by poor infrastructure (transport and electricity) and some of these regions are politically unstable.

It is not surprising therefore, despite these commercialization tendencies, to find that the goals of a sugar refinery to be erected in Southern Sudan (one of the poorest regions of the country) are identical to those of the Guneid Sugar factory (the first case study) which was erected more than two decades ago. It is not surprising

either to find that the political and social goals of the project are emphasized side by side with the economic goals in the feasibility study of the project. Thus, the feasibility study of the project to be erected in Southern Sudan identified the following goals of the sugar refinery\*:

- It is a national socio-economic project which is aimed at developing the Southern Sudan economically, socially, and industrially, in particular, and Sudan in general,
- It creates job opportunities for 5,000-5,600 citizens,
- To produce sugar to satisfy the local consumption of the citizens and to export surplus in order to earn the foreign hard currency, and
- Above all, given the required total investment and operating costs for the implementation of the project under the mentioned conditions, it is undeniable to mention that this project is feasible and will pay back its debts within 17 years.

Apart from soliciting the opinions of the members of the 'dominant coalition' in the public manufacturing sector, another way of investigating the organization goals is to ask the general managers of these public manufacturing companies about the considerations which they take into account when making these decisions (Perrow, 1966, Anthony et al, 1984). As we have already discussed in Chapter 7, the production decision is made at the public corporations' headquarters with a view to maximizing production and consequently reaching self-sufficiency in these products. Similarly, underpricing practices are quite common in the public manufacturing companies with a view to reducing the cost of living to the mass public at the expense of incurring

\* Source: Ministry of Finance and Economic Planning, Project Preparation Unit (PPU), Agro-industrial Feasibility Study of Melut Sugar Project, Khartoum, 1985.

huge losses. Most important, the way the investment decisions are made in the public manufacturing companies illustrates the political and social goals of these enterprises. This could basically be seen in the 'politicization of the investment decisions to locate the public manufacturing companies themselves'.

The six textile factories established within the six-year plan is a good case in point for the politicization of the investment decisions in the public enterprises. These six textile mills were originally planned to be one large textile factory to be located in the central region where the raw material (i.e. cotton) and the appropriate infrastructure exist. But, being driven by the desire to develop the regions, the proposed large textile mill was disintegrated into six smaller textile mills which were geographically dispersed throughout the different regions of the country. One textile factory was located in the northern region and in a village where the former Vice President comes from. As these political decisions override any scientific investment criteria, some of these factories did not even start working because they were mislocated. Thus, the new government reconsidered the location of these textile factories, and the factory erected in Northern Sudan has already been moved to the capital. On the other hand, the desire to create jobs and increase the income of the local inhabitants, tends to influence the employment decisions to the extent that 'disguised unemployment' is quite common in the public manufacturing sector. Once again, therefore, it is beyond doubt that the public manufacturing companies tend to emphasize the political and social goals in their strategic decisions.

The previous discussion, therefore, has revealed that the public manufacturing companies have emphasized both the political and social goals and underestimated the commercial goals. We now turn to investigate

the principal goal pursued by the public hotels. The official goals of the Hotels and Tourism Corporation, which is created by the government to manage the publicly-owned hotels, are incorporated in Chapter Two of its special warrant of establishment, according to which "the Corporation is to promote and develop the internal and external tourism through tourism marketing, providing tourism services and the establishment of the tourist areas and hotels, and all the other matters related to hotels and tourism according to the public policies and programmes in this respect". When asked about the principal goal of the public hotels in his opinion, the general manager of the Hotels and Tourism Corporation stated similar goals:

"To obtain hard currency and to host the government delegates. This in addition to providing excellent hotel services and to promote the tourism industry in the country".

When asked about whether or not profit-making is the principal goal of the public hotels, he rejected this idea, arguing that:

"We are not basically after profits, but we are supposed to cover our costs".

Similar views were expressed by the general managers of the two public hotels when asked about the principal goal which they pursue in their hotels.

"You see, your goals should always be the development of the tourism industry in the country and you should not run after profit-making as a basic objective".

and that:

"Of course, the foreign resident should feel comfortable and safe so as to attract the foreign tourists to the country and thereby promote tourism in the country".

These statements, therefore, tend to suggest that the principal goal of the public hotels is heavily geared towards the development of the tourism industry in the country. To achieve this goal, the Hotels and Tourism Corporation has established some hotels and parks

throughout the country. Examples of these include the establishment of Jemeza Tourist Village in Southern Sudan, the Dinder National Park and the Arrousa Tourist Village in Eastern Sudan. In particular, the classified public hotels in the capital are established to provide top quality services to foreign tourists with a view to attracting them to the country. The establishment of the public hotels to promote the tourism industry in the country is seen as a must as the private sector was reluctant to enter this area of business till recently in the late seventies. However, the idea of developing tourism in the country emerges as it is considered as another source of foreign currency. Therefore, in a country which faces acute shortage of hard currency, the public hotels are viewed as vehicles to promote the tourism industry in the country and thereby increase the proceeds of the country from hard currency. In this sense, therefore, the principal goal of the public hotels in increasing the sources and supply of hard currency is not different from that of the public manufacturing companies.

This conclusion on the principal goal pursued by the public hotels could be investigated through the considerations taken when making the major decisions. For instance, as the general manager of the Hotels and Tourism Corporation put it, the investment decision in the public hotels is basically meant to increase the conference and accommodation facilities in the country. For instance, the idea of rehabilitating the Grand Hotel emerged in the mid seventies during the summit of the Organization of African Unity in Khartoum. At that time, shortage of accommodation was witnessed and even some delegates were accommodated in the University (of Khartoum) hostels. At the same time, accommodation problems arose as the amount of expatriates working in the development schemes in the country increased. It is not surprising therefore that the government officials in the Hotels and Tourism Corporation

and the general managers of the individual hotels emphasize the principal goal of promoting the tourism industry and increasing the hotel accommodation capacity in the country with a view to increasing the proceeds to the country of hard currency. Therefore, one could conclude that the principal goal of the public hotels is to achieve the goals of the government in promoting the tourism industry in the country, which is at its infant stage, and thereby increasing the proceeds to the country of hard currency. Therefore, one could argue that the public hotels, like the public manufacturing companies, emphasized the goals of the macroeconomic policies of the government and therefore, by virtue of ownership, they are used by the government as vehicles to achieve these goals incorporated in the government development plans. For instance, the three-year Prospects, Programmes and Policies for Economic Development ('84/'85-'86/'87) has defined the goals of the public hotels as follows:

"The improvement of hotel facilities in the national capital and elsewhere is essential to accommodate the expatriate technicians working on various programmes as well as travelling businessmen and tourists who constitute a source of foreign exchange earnings for the country".

To facilitate achieving this goal, the pricing decision, that is, the hotel tariffs charged by the public hotels are fixed in such a way as to encourage the tourism in the country. This is because, according to the statements of the government officials in the Hotels and Tourism Corporation and the general managers of the public hotels, they are much lower than those charged by their counterparts in the private sector. For instance, the hotel tariffs charged by the first hotel (the Grand Hotel, a five-star and a first class deluxe hotel) are much lower than those charged by the first private hotel, that is, Hilton Hotel (a four-star hotel). Generally speaking, therefore, the hotel tariffs charged by the public hotels are much lower

than those charged by the private hotels in the private sector. However, the hotel tariffs of the public hotels do not imply underpricing practices like those identified in the public manufacturing sector. Therefore, even with these lower hotel tariffs, the two public hotels still make profits.

This is because, while the hotel tariffs are low enough to encourage the tourism industry in the country, they are still fair enough to cover the costs of rendering the hotel services, that is, to break even. Part of these costs is the payment of 5% as interest on capital invested to the Ministry of Finance and Economic Planning. This 5% interest on capital invested (Total Assets-Total Liabilities) is more or less equivalent to "a residual income" which should be paid by the public hotels on an annual basis. This implies that while the public hotels emphasize the political goals of the government in developing the tourism industry in the country, they also put some emphasis on achieving economic goals, that is, profit-making. This could be attributed to the nature of the hotel industry as a service industry which could reconcile the political and social goals with those which are commercial. The obvious reason for this is that the hotel industry is less exposed to the problems of hard currency and electricity, as in the case of the public manufacturing companies. Another reason for the pursuit of the commercial goals while safeguarding the major goal of developing the tourism industry in the country, is the policy of the government according to which all the public enterprises engaging in the service industries (e.g. hotels, telecommunications, post office) should cover their operating costs including the 5% interest on capital invested. This is not the case of the public manufacturing companies which incur huge losses and do not pay the 5% interest on capital invested, though recognized in their financial statements.



In conclusion, therefore, the previous discussion tends to confirm that the principal goal of the public enterprises is to serve the goals of the economic and social development policies of the government.

Thus, the public manufacturing companies tend to emphasize the political and social goals of the government in industrialization, rural development, creation of job opportunities and the provision of social services such as education and health. The public hotels, on the other hand, emphasized the pursuit of the goals of economic and social development policies of the government in the hotel sector, which are heavily geared towards the development of the tourism industry in the country and consequently increase the country's proceeds from hard currency. However, the public hotels put much emphasis on achieving the government-backed economic objectives, that is, achieving 5% as an interest on capital invested in the public hotels. After all, the pursuit of the political and social goals, rather than the commercial goals is not unique to the Sudanese public enterprises and is experienced by the other developed and developing countries. Reddy (1984), for instance, argues that:

"The use of public enterprises for purposes of stabilization of the economy is not of recent origin. Following world war two, enterprises were used for reconstruction of the economy and as tools for fighting recessions".

Ramanadham (1984), referring to the use of public enterprises in economic development in the developing countries, made it clear that:

"The development status of several developing countries was so low that the first efforts towards development involved them in heavy costs that were analogous to overheads of national economic development. And a significant proportion of these developed on public enterprises which happened to be the vehicle of the development strategy".

and that:

"The emergence of public enterprise in developing countries has coincided with initial stages of industrialization and modern economic development".

We now turn to discuss the implications of the emphasis on the political and social goals in the public enterprises for the level of sophistication of management accounting techniques and the role of the controllership function in these enterprises. A close consideration of the pursuit of the political and social goals in the public enterprises suggests that it could easily be used by the managers of these enterprises as "a scape goat" to justify the poor performance of their enterprises. This could be deduced from the statements of some managers who were very pleased by the social services such as education, health, and electricity which are provided as a result of erecting a government-owned factory, without taking notice of the huge losses which their companies sustained for many years. The managers' 'feeling of indifference' towards the financial performance has further been intensified by the fact that the government explicitly accepted this justification as it is prepared to generously, heavily and openly subsidize the public enterprises. While a major part of the poor performance of the public enterprises could be attributed to the pursuit of the political and social goals (e.g. underpricing), nevertheless, this should not blind us to the contribution that good management and clarity towards the other economic goals can make towards better performance, that is, improving efficiency and effectiveness. Therefore, one could argue that the pursuit of the political and social goals could easily allow managers of the public enterprises to diffuse the responsibility for inefficiency simply by attributing the huge losses to the pursuit of the non-commercial goals imposed by the government. The inducement of inefficiency in turn would discourage the management of these enterprises from applying modern management accounting techniques and overestimating the role of the controllership function

in internal reporting, which are mainly designed to improve efficiency and effectiveness in the business organizations.

Additionally, the ambiguity towards the commercial goals has eradicated the idea of profitability as being the most important key success factor in the public enterprises. This is because some managers, while emphasizing the socio-political goals of their organizations, failed to recognize profitability as the most important key success factor in their enterprises. Not only that, but practically speaking, some managers failed to reconcile the political and social goals imposed by the government with those which are commercial, even they recognize profit-making as a goal. This is particularly true in the public manufacturing companies where the underpricing practices with a view to reducing the cost of living is quite common. The ambiguity towards profitability as the most important key success factor is worsened by the lack of government-backed objectives in the public manufacturing companies. Therefore, the low emphasis on profitability has reduced the managers' natural feelings and desire for cost-consciousness and control, and improving the efficiency and effectiveness of their enterprises. Additionally, the confusion of managers towards profitability as the principal goal has undermined the role of the management accounting techniques and controllers in establishing, following-up, securing and assessing the achievement of this principal goal. Instead, it would appear that managers in the public enterprises, especially in the public manufacturing companies, have resorted to non-financial indicators, such as the number of schools, hospitals, and roads built as a result of erecting a public enterprise, as success indicators. Therefore, one could conclude that the low emphasis on profitability as the most important key success factor in the public enterprises, has discouraged the managers

from adopting highly sophisticated management control systems and improving the role of the controllership function in their organizations.

#### 9.1.2 The Organization Goals of The Private Enterprises

Following the discussion on the organization goals of the public enterprises and their implications for the level of sophistication of management accounting techniques and the role of the controllership function in these enterprises, we now turn to the private enterprises. To explore the views of the managers regarding the principal goal of their organizations, we solicited their opinions about the most important key success factor in their organizations. The following responses by the managers of the private enterprises are typical of many.

"Of course, like any enterprise, our success indicator is how much profits we make".

"Of course, it is a profit-making concern".

"Our first goal is to achieve reasonable profits for the shareholders and then to participate in the development of the Sudanese economy and to contribute to the social welfare of the workers of the company".

and that:

"I do not really know exactly what you want to learn from me. You see our goals are not different from those of any commercial organization. We are trying to achieve a reasonable return on our investment".

Similar responses were made by the general managers of the private hotels when asked similar questions.

"If you are running a private enterprise, then you want to make profits and ensure that owners get a reasonable return on their investment. Moreover, the international image of the Hilton Hotels encourages tourism in the country".

and that:

"Our major goal is the improvement of the goodwill of the hotel which is connected with the services we render. This in turn will increase the number of our customers and consequently our profits".

These statements made it quite clear that the profit motive is the most important organization goal which has been emphasized by the managers of the private enterprises. In fact these responses indicate that profit-making as a major goal has even been taken for granted by some managers who were surprised when the researcher asked them this question. Most of these statements tend to emphasize the single goal of profit-making as the most important organization goal. Thus, the problem of multiplicity 'or dualism' of the organization goals does not arise in the private sector. Even when managers refer to some political and social goals, they tend to insist that profit-making comes first. Therefore, the managers of the private enterprises tend to emphasize the commercial goals and pursue the political and social goals only as secondary ones.

However, it would be pretty naive to assume that the private enterprises are not affected by the goals of the government economic and social development policies. This is because the government economic development policies are heavily geared towards satisfying the profit-making motive of the private enterprises as a prerequisite for pursuing the other goals of the government economic and social development policies in industrialization, provision of jobs and increasing the proceeds to the country of hard currency either through export or import-substitution. Thus, the 1980 Act of the Investment Encouragement has provided potential private investors with some facilities and privileges, the most important of which is the full protection policy which we discussed in the previous chapter. Moreover, the government has guaranteed a 15% profit-margin for locally-produced and consumed products. Moreover, the 1981 Government Labour Regulations have even entitled the private enterprises to make compulsory redundancies for economic reasons such as slump in business. Therefore, while

securing the principal goal of profit-making, the private enterprises tend to pursue the other political and social goals only as 'by-products'.

The considerations taken in making the major decisions of the private enterprises tend to confirm the above conclusion on the emphasis of the commercial goals. Thus, all the private enterprises fix their prices on the cost-plus basis. The underpricing practices meant to reduce the cost of living, which is quite common in the public sector, is not known in the private enterprises. Similarly, the investment decisions in the private enterprises are made on pure and sound scientific basis. As we have already discussed, the private enterprises subject their investment decisions to rigorous appraisal. Consequently, the political considerations and the arbitrariness making the investment decisions, which are quite significant in the public enterprises, simply do not exist in the private sector enterprises. Finally, the creation of job opportunities in the private enterprises reflect the needed labour force, rather than creating jobs to the extent of disguised unemployment as in the case of the public enterprises.

On the whole, therefore, the previous statements of the managers of the private enterprises and the major considerations taken in the major decisions of the private enterprises tend to confirm the clarity towards the economic goals in the private enterprises. Not only that, but our discussion in Chapter 6, revealed that managers of the private enterprises have operationalized these economic goals in terms of the specific 'economic objectives' expressed in their profit budgets, which represent the profits to be achieved within the financial year. However, the estimation of a profit target does not necessarily mean that

the management of the private enterprises guarantee its achievement, which depends largely on the intensity of the problems of hard currency and electricity cuts. Nevertheless, the mere identification of a profit target as the most important key success factor reflects the determination and the optimistic morale of the management, and to say the least, indicates the management's concern and intentions to improve the efficiency and effectiveness of their enterprises even within this hostile environment. Additionally, the formulation of a profit target indicates that the managers of these enterprises are cost-conscious, which in turn provides a natural motivation for cost control. Therefore, one could argue that the identification of profitability as the most important organizational goal in the private enterprises has motivated managers to apply sophisticated management control systems to help establish, secure and measure the achievement of this profit-target.

By the same token, the identification of profitability as the most important key success factor in the private enterprises, has forced the management to rely heavily on the controllership function to keep a close eye on this profit target. This in turn has enhanced the role of the controllership function in internal reporting and interpreting the results of operations to the different management levels with a view to helping managers achieve this profit target, by keeping them on course and assuring them that they are on the right track towards achieving this profit target. This in turn would enable us to argue that the managers' clarity towards commercial goals has motivated them to improve the efficiency and effectiveness of their enterprises, and consequently, has encouraged them to improve the level of sophistication of management accounting techniques and the role of the controllership function in their enterprises.

However, the clarity towards the commercial goals, and consequently, the high level of sophistication of management accounting techniques and the role of the controllership function in the private enterprises does not necessarily guarantee that they are profitable. This is because the managers of the private enterprises, especially in the manufacturing sector, stressed the importance of the other key success factors, which basically include raw materials and power supplies, for the achievement of the principal goal of profit-making. As we discussed in detail in Chapter 7, these key success factors are externally controlled by the government. Therefore, emphasizing the profitability as the most important key success factor does not help very much in achieving the profit-making goal, because the other related key success factors are outside the control of the private enterprises. As in the case of the two textile companies, huge losses could be attributed to these uncontrollable factors, which, taking into consideration the nature of the Sudanese economy as a developing one, is quite acceptable. On the other hand, the high level of sophistication of management accounting techniques and the controllers involvement in management does not necessarily imply that an enterprise will be profitable and vice versa. This is because the level of sophistication of management accounting techniques and the controllers' role in management is only one out of many factors that affect the profitability of an enterprise, particularly in a developing country like Sudan characterized by infrastructural problems. Thus, two private enterprises (the first food company and the second hotel) though profitable, have got less sophisticated management accounting techniques and the role of the controllership function is very low compared to the other private enterprises. The reverse holds true in the other two textile companies.



### 9.1.3 Concluding Remarks

This discussion on the implications of the organization goals for the different levels of sophistication of management accounting techniques and the role of the controllership function in the public and private enterprises tends to confirm hypothesis 4. Thus, one could conclude that the ambiguity towards the economic goals in the public enterprises has negatively affected the level of sophistication of management accounting techniques and the role of the controllership function in management. On the other hand, the clarity towards the commercial goals in the private enterprises has positively affected the level of sophistication of management accounting techniques and the role of the controllership function in internal reporting in these enterprises. Once again, one has to warn against overgeneralization in the case of the conclusions on the private enterprises. This is because the clarity towards the economic goals does not necessarily mean a high level of sophistication of management accounting techniques and controllers' involvement in management, as in the case of the first food company and the second hotel. All we can say at this stage is that the clarity towards economic goals is one out of many factors that have positive implications for the level of sophistication of management accounting techniques and the role of the controllership function in organizations, and does not necessarily guarantee positive implications on its own. As the discussion proceeds, our conceptual framework may reveal some organizational and/or managerial factors that have negative implications in these two private enterprises, even though the degree of government control over these two enterprises is loose and even though they emphasize the economic goals.

Finally, it is worth mentioning that the pursuit of political

and social goals by the public enterprises and the emphasis of commercial goals by the private enterprises, is by no means peculiar to the Sudanese case. This is mainly because the role of the public enterprises in economic and social development is the same anywhere in the developing countries. Jaggi (1970), for instance, expressing the Indian experience, states that:

"The objectives and motives of companies in the public sector are quite different from the motives of the companies in the private sector. These companies are not established with a profit motive, but with one of service. They are formed in the interest of the national economy, for development of technology and economic growth, and sometimes for national prestige. As a result of these motives, it may sometimes be necessary to sustain losses".

Similarly, Garner (1984), expressing the Thai experience makes similar remarks:

"Students of public enterprise are aware of the fact that, in contrast to private enterprise with its essentially single objective of profitability, most enterprises are affected by multiple objectives with potentially adverse consequences for their autonomy of management and for the measurement of their efficiency".

## 9.2 The Organization Structure

The contingency theory of the management accounting systems has emphasized the importance of the way organizations are structured for the sophistication of management accounting techniques and the role of the controllership in organizations. This is basically because the management accounting systems and the role of the controllership function are basically designed to provide the accounting information for control and decision-making. Saleem (1981), for instance, referring to the impact of the organization structure of the Iraqi Cement industry on the need for accounting information for decision-making, states that:

"Since no major decisions are made at the factory level, then only a few managers are involved in solving the major problems. It follows that the number of managers who need information for decision-making are small. That in turn reduces the number of managers that ask for accounting special studies".

Similarly, Bruns and Waterhouse (1975) conclude that:

"Lack of autonomy was negatively correlated with control systems complexity as was centralization".

Additionally, the organization theory has identified various dimensions of the organization structure. For our purposes and in line with our definitions in Chapter 5, we will concentrate on one dimension in both the public and the private enterprises, including the levels of authority structure and the extent to which the business decisions are made outside the organization level. Most important, we discuss the implications of the organization structure for the level of sophistication of management accounting techniques and the role of the controllership function in both sectors.

#### 9.2.1. The Organization Structure of The Public Enterprises

The authority levels in the public enterprises could be diagrammatically depicted as in figure 9.1. Thus, the main feature of this organization structure is the multiplicity of authority levels. According to the organization structure of the public enterprises, therefore, one could identify three authority levels. At the top of the organization chart come the Minister of Industry in the case of the public manufacturing sector and the President of the Republic in the case of the public hotels. The 1976 Public Corporations Act defines the authority of the Minister of Industry as "Every Corporation shall be under the supervision of a Minister specified by its warrants of establishment, who may in addition to the other powers provided for in this Act, give such general or specific directions to the board (of directors of the public corporations) in any matters relating to the corporation as he may think to involve public interest and the board shall act according to such directions". Also the act requires that the Minister of Industry should submit to the council

of Ministers biannually a report on the progress of the business of the public corporation. In the case of the public hotels, the President of the Republic comes at the top of the organization chart to assume general supervision as it is deemed necessary to enable the Hotels and Tourism Corporation to achieve its objectives.

The second authority level in the public enterprises is the public corporation level. The public corporations, being separate legal bodies, are established to manage the government-owned textile and food factories and hotels. They include the Public Corporation for the Textile Industries, the Food Industries Corporation and the Hotels and Tourism Corporation. These public corporations, which are wholly-owned by the government, are usually created by a special warrant of establishment issued by the President of the Republic. Each warrant of establishment assigns a number of government-owned factories in a certain manufacturing industry and the public hotels to a public corporation. The warrant of establishment specifies the goals of the public corporation, the capital of the public corporation, and the formation and the duties of the board of directors of the public corporation. The boards of directors of these public corporations usually consist of representatives of some ministries and government departments because their assistance is deemed necessary to enable these public corporations to achieve their goals. Most important, these warrants of establishment specify the authorities of the public corporations and their boards of directors over the government-owned factories and hotels. Accordingly, the public corporations are fully authorized to make all the decisions related to their factories and hotels including the procurement of raw materials, the pricing and marketing decisions, and the production decisions.

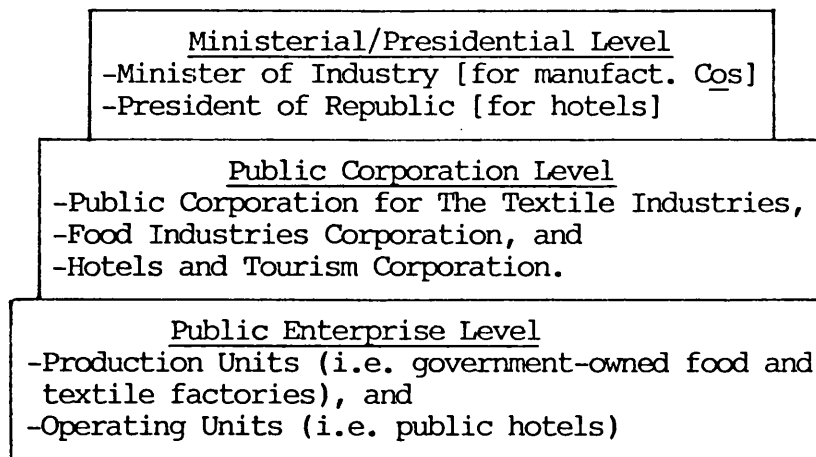
For illustrative purposes, we include the warrant of establishment of the Public Corporation for the Textile Industries, which is similar to those of the other two public corporations as an indicator for the range of authorities of the public enterprises over their production and operating units.

The third authority level in the organization chart of the public enterprises is the management of the individual public enterprises. In the case of the manufacturing industries the warrants of establishment of the public corporations refer to the individual manufacturing companies as the production units, and in the case of the hotel industry, the hotels are referred to as the operating units. As their names imply, the authorities of these production and operating units are reduced to nothing more than operating within the budget estimates prepared at the beginning to the financial year and achieving the approved production or service budgets and the appointment of junior staff. Therefore, by virtue of this organization chart, the managerial autonomy of the public enterprises is completely lacking. The objectives of this organization chart of the public enterprises as such are basically meant to tighten the government control over the public enterprises by directly linking them to the government administrative apparatus. Last February (1986) 'symbolic changes' occurred in the public textile sector in line with the privatization tendency in the country.

Accordingly, the Public Corporation for the Textile Industries was renamed as the Public Company for Spinning and Weaving Limited, and it was registered under the 1925 Companies Act. As part of these measures, the ownership of the first textile company (the largest) is shared between the Ministry of Finance as the owner and the National

Export and Import Bank which owns about 1% of the Company's share capital. However, so far there are no real changes in ownership of the Textile Corporation as it still wholly-owned by the state. These symbolic changes, however, are a gesture towards the privatization policies in the country.

Figure 9.1: The Organization Chart of The Public Enterprises



The above discussion establishes beyond doubt that the public enterprises, by virtue of their organization chart, are less autonomous. The public corporations established by the government retain full authority for making the major decisions of the individual public enterprises. However, this type of organization structure is not unique to the Sudanese public enterprises and is quite common to the other developing countries (Saleem, 1981, Garner, 1983, Ramanadham, 1984). Not only that, but the problem of reconciling managerial autonomy with maintaining some control in organizing the public enterprises has confronted the developing as well as the developed countries. Ramanadham (1984) argues that:

"The problem of reconciling managerial autonomy with government control is thus seen to be present East and West, and in developing as well as developed countries".

The report of the United Nations on the organization and adminis-

tration of the public enterprises in the field of industry in some developing countries (1954) concluded:

"The great increase in the number of state-owned and operated business enterprises during the last decade, has confronted every nation with a basic dilemma: How can the operating and financial flexibility required for the successful conduct of an enterprise be reconciled with the need for controls to assure public accountability and consistency in public policy?"

In line with the emphasis of this study, we now turn to discuss the implications of this organization structure for the level of sophistication of management accounting techniques and the role of the controllership function in the public enterprises. Certainly, this organization structure, as we discussed in Chapters 7 and 8, has formally authorized the public corporations to make the important decisions of the individual public enterprises, basically price-setting and the procurement of raw materials. Clearly, this fact has discouraged the managers of the public enterprises from taking any initiative to establish sophisticated management accounting techniques and resort to the controllership function, which could have provided them with the accounting information to make these decisions. It is not surprising, therefore, that some financial controllers in the public manufacturing companies did not see any point in establishing cost accounting systems as long as their prices are fixed by these public corporations.

Moreover, this organization structure of the public enterprises emphasizes the authority structure of the public corporations and fails to emphasize the accountability of the individual public enterprises. For instance, the warrants of establishment of the individual public corporations did not refer to the responsibilities of the general managers of the individual public enterprises (that is the production units) for the efficient and effective utilization of the

available resources in their organizations. As we argued earlier, the lack of government-backed objectives has further aggravated the situation. Moreover, the lack of follow-up and feedback on the part of the public corporations, especially in the manufacturing sector, has discouraged the general managers of the individual public enterprises from making any genuine attempts to operate efficiently and effectively, sophisticate their management accounting techniques and improve the role of the controllership function in their organizations. As the statements of the general managers of the public manufacturing companies tend to suggest, the general managers tend to put all the blame for poor financial performance on the public corporations and the Ministry of Industry. This in turn has discouraged managers from making use of accounting information and accountants' services to help solve the operating problems (such as electricity and shortage of raw materials) encountering production.

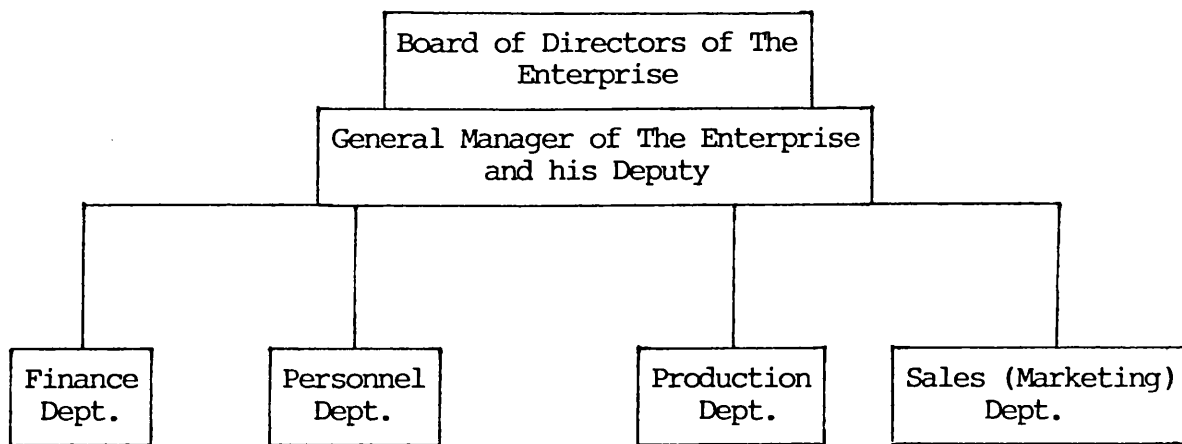
#### 9.2.2 The Organization Structure of The Private Enterprises

Our investigations in the private enterprises, on the other hand, showed that all the private enterprises, with the exception of the first hotel (Khartoum Hilton) are organized on the basis of direct management according to the 1925 Companies Act. According to this organization chart, as shown on figure 9.2, the authority to make decisions and manage the private enterprises is vested with their board of directors. A distinctive feature of this organization chart is that the boards of directors of the private enterprises retain all the authority to manage the private enterprises by virtue of their memorandum and articles of association. In this sense, therefore, the private enterprises are not subordinated to any government-owned public corporations as in the case of the public enterprises. However,



in the case of the first hotel, that is, Khartoum Hilton Hotel, it is subordinated to the parent company, that is, Hilton International Company ( a US hotel company based in New York) and is run as one of its subsidiaries by virtue of a management contract, as will be discussed in detail in section 9.4.2.

Figure 9.2: The Organization Chart of The Private Enterprises



Therefore, by virtue of this organization chart, the authority to make decisions in these enterprises is concentrated inside the organization. Our previous investigations showed that even when the private enterprises refer their decisions to outside government bodies, or the parent company as in the case of the first hotel, the decision-making process originates inside these organizations and the decisions receive rigorous analysis and consideration by the management. Over and above the simplicity of the authority levels, the organization structure of the private enterprises is characterized by the simplicity of segmentation, or the extent to which the organization is subdivided into divisions and departments. As the organization chart shows, the private enterprises are functionally departmentalized. At the apex of the organization chart come the board of directors and the general managers of the private enterprises, and then come the operating managers, who

mainly include the sales (marketing), production, finance, and personnel managers. Moreover, this completely autonomous organization structure has relieved the private enterprises from being subjected to the restrictive government financial and purchases statutes as we have seen in connection with the public enterprises.

Undoubtedly, therefore, this organization structure has guaranteed greater managerial autonomy for the management of the private enterprises. Therefore, the fact that the managers of the private enterprises were confronted with making decisions like pricing and investment, has motivated them to rely on accounting information as we discussed in Chapter 7. Furthermore, this need for accounting information is boosted by the requirements of the government bodies and regulations which were especially created to control these decision areas. In all, therefore, this need for accounting information to solve these managerial problems has encouraged managers to establish their own management accounting systems and to resort to the controllership function to provide the needed accounting information. Indeed, this need for accounting information and the help of controllers in making managerial decisions is illustrated by including the financial controllers as important members of the management committees which make these decisions. As we have already discussed in Chapter 7, the financial controllers played a key role in these management committees by providing information and are seen as the right persons to defend the company's interests before some government bodies such as the Industrial Costs and Pricing Administration and the Bureau of Investment.

Furthermore, this simple and autonomous organization structure has helped to emphasize the accountability of the management of the private enterprises before the shareholders of these enterprises at

the end of each financial year. Moreover, the establishment of objectives in terms of profit budgets encourages the management to achieve its commitments. This feeling of accountability, therefore, will create a natural desire to improve performance, efficiency and effectiveness of their enterprises. Being relieved from the government financial and purchases statutes, the management of the private enterprises has maintained the initiative, judgement and above all flexibility which are essential for effective and efficient operations. Therefore, this need and freedom to operate efficiently and effectively has motivated the management of the private enterprises to improve the sophistication of management accounting techniques and to rely heavily on the controllership function to keep the enterprise on course. However, even with this clear accountability it is possible that the management of the private enterprises diffuses responsibility on the basis of the uncontrollability of some externally-controlled factors such as raw materials and power supplies. Nevertheless, the managers of the private enterprises have to produce sufficient and convincing evidence that poor performance could be attributed to these uncontrollable factors rather than being used a 'a scape goat'. In the second textile company, for instance, the management has been sacked by the shareholders upon failure to achieve the budgeted targets. More details on this are to follow.

In conclusion, therefore, one could argue that the highly autonomous organization structure in the private enterprises has helped to improve the level of sophistication of management accounting techniques and the role of controllers in these enterprises. However, this is not necessarily the case for all the private enterprises. This is because at least two private enterprises (the first food company and the second hotel) have got less sophisticated management accounting

techniques and their controllership function is less involved in management despite the fact that they are managerially autonomous. Though it is difficult to say why at this stage, to say the least, the organization structure is one of a combination of factors that affect the level of sophistication of management accounting techniques and the role of controllership function.

### 9.2.3 Concluding Remarks

The above discussion revealed two different types of organization structure. The first type is that of the public enterprises, which is mainly characterized by the multiplicity of authority levels. Thus the authority to make decisions and manage the public enterprises is fully centralized by the respective public corporations. Not only that, but the formal authority to manage the public enterprises by the public corporations has further been asserted by imposing the government financial and purchases statutes. Thus, the lack of managerial autonomy has discouraged managers of the public enterprises from developing their management accounting systems and seeking the help of the financial controllers. Additionally, the government financial and purchases statutes proved in some cases to hamper performance and frustrated managers from taking initiative to improve efficiency and effectiveness. One could even infer a feeling of resentment by some managers who feel that the purchases statute has dramatically increased the cost of production in comparison to the private enterprises. In other instances, the government financial statutes proved to be counter-productive, as some managers tend to resist them and build up huge budgetary slacks rather than considering ways and means of improving efficiency.

The second type of organization structure is that of the private

enterprises. A major distinctive feature of this organization structure is the concentration of authority to manage and make decisions of these enterprises inside the organization's level. Thus, the authority levels in the private enterprises are characterized by simplicity rather than multiplicity. Moreover, this highly autonomous organization structure, which is based on direct management rather than being subordinated to an outside government-owned public corporation, has freed the private enterprises from any restrictive government financial and purchases statutes. On the whole, therefore, this type of organization structure has enabled the management of the private enterprises to enjoy greater managerial autonomy and flexibility. This in turn has encouraged the management of the private enterprises to sophisticate their management accounting techniques and to develop the controllership function to provide accounting data to make managerial decisions. Moreover, with the feeling of accountability and being released from the stringent government financial and purchases statutes, managers of the private enterprises have striven to improve their efficiency through management accounting techniques like budgets and cost accounting systems, and to rely heavily on the controllership function in reporting and providing the accounting information which is used for control and performance evaluation purposes.

Generally speaking, therefore, these conclusions tend to confirm hypothesis 5. Consequently, as we argued above, the organization structure of the public enterprises, which lacks managerial autonomy, has negatively affected the level of sophistication of management accounting techniques and the role of the controllership function in these enterprises. On the other hand, we have seen that the highly autonomous organization structure of the private enterprises has improved the level of sophistication of management accounting techniques

and the role of controllers in the management of the private enterprises. However, one has to warn against overgeneralization of these conclusions in the private enterprises. Our discussion in Chapters 6 and 7 has revealed that at least two private enterprises (the first food company and the second hotel) have got less sophisticated management accounting techniques and that their controllers are less involved in management. As the discussion proceeds one would expect our research model to provide an answer to this situation of the two private enterprises which, like the other private enterprises, are equally autonomous.

### 9.3 The Organization Size

The empirical management accounting research and the modern contingency theory of management accounting systems have associated the level of sophistication of management accounting techniques and the role of the controllership function in organizations to their size (Savage, 1967, Bruns and Waterhouse, 1975, Rosenzweig, 1981 and Rikabi, 1984). This does not involve the identification of the degree of importance of size or identifying a standard size below or above which one could expect high or low role for management accounting and accountants. An important point has to be highlighted before analyzing the data and discussing the implications of size for the level of sophistication of management accounting techniques and the role of the controllership function in the public and private enterprises, and consequently testing hypothesis 6. Because the sample companies include both manufacturing and hotel (service) companies, one has to take this fact into consideration when interpreting the data. Therefore, the impact of size will be analyzed according to whether a company is in the manufacturing or the hotel industry,

though still within the public-private ownership dichotomy. This is meant to minimize misinterpreting the data and reaching wrong conclusions when using samples with different types of organizations (Kimberley, 1976).

#### 9.3.1 The Organization Size of The Public Enterprises

Table 9.1 shows the relationship between the size of the individual public enterprises and the level of sophistication of management accounting techniques and the role of the controllership function in these enterprises. Thus, in the public manufacturing sector, one could hardly see any importance for size on the level of sophistication of management accounting techniques and the role of controllers in the public manufacturing companies. This is because the first textile company, which is the largest, nevertheless, the level of sophistication of management accounting techniques is almost identical to that of the other three public manufacturing companies, which are smaller. The only difference is that this company has got a cost accounting system and an internal audit department. However, the application of a cost accounting system in the company does not imply an initiative made by the company management as the system was introduced by the Efficiency Improvement Unit as discussed in Chapter 6, and is not used in pricing. Moreover, the selection of this company does not mean that its size is the primary consideration for implementing the cost accounting system. Another public textile company whose size is much smaller has been selected by the Unit to apply the same cost accounting system. The role of the controllership function in the first textile company is no better than that of the other three public manufacturing companies. Instead, the role of the controllership function is heavily geared towards providing accounting data for the external government bodies, rather than

preparing routine and special accounting reports for the use of the management of the company.

This conclusion is further supported if it is compared to the other manufacturing companies in the private sector, which, though smaller, have got sophisticated management accounting techniques and their controllers are much involved in management. These include the second textile company and the second food company. Furthermore, this conclusion is reached in the public hotel industry too. This is because the first hotel, though its size is more than double that of the second hotel, nevertheless, this has no importance for the level of sophistication of management accounting techniques and the role of the controllership function in the first hotel. The practices in the two hotels are identical. Therefore, one could conclude that size has little or no importance for the level of sophistication of management accounting techniques and the role of the controllership function in the public enterprises.

This conclusion tends to contradict the conclusions of the contingency theory of management accounting systems on the impact of size. To say the least, these conclusions tend to question and cast doubt on the generalizability of the impact of size on the level of sophistication of management accounting techniques and the role of the controllership function in organizations. Moreover, this conclusion implies that there must be another factor or variables whose effect on the level of sophistication of management accounting techniques and the role of the controllership function in the public enterprises are influential to the extent that the impact of size is reduced to nothing. Our previous conclusions tend to suggest that this variable is the tight government control on the public enterprises



which has direct and indirect negative implications for the level of sophistication of management accounting techniques and the role of controllers in the public enterprises. For instance, the government financial and purchases statutes have stipulated the budget structure and range, objectives of the internal audit, the sales policies, the purchases and the stores policies which are to be strictly adhered to by all the public enterprises irrespective of their size with a view to unifying the financial practices in these organizations. Indeed, the size of the public enterprises itself comes under fire as a result of the tight government control over the investment decisions of the public enterprises. Accordingly, the sizes of most of the public enterprises are small because they are distributed on a regional basis to facilitate economic and social development. As we have already mentioned, a large textile mill has been disintegrated into six smaller textile mills on a regional basis.

#### 9.3.2 The Organization Size of The Private Enterprises

Table 9.1, on the other hand, shows the organization size of the private enterprises participating in the research. A closer look at the table suggests that the level of sophistication of management accounting techniques and the role of the controllership function in the private enterprises is closely linked to their sizes. Accordingly, at least three manufacturing companies (the two textile companies and the second food company) which are larger than the first food company have got sophisticated management accounting techniques and their controllership functions are involved in their management. In the private hotels, size seems to have an impact on the level of sophistication of management accounting techniques and the role of controllers in these hotels. Thus, in the first hotel (Khartoum Hilton Hotel) the level of sophistication of management accounting techniques and the role

Table 9.1: The Relationships Between Size, The Level Of Sophistication of Management Accounting Techniques and The Role of Controllers in Both Sector Enterprises

Public/Private Industries	Size of The Enterprise	The Level Of Sophistication of Management Accounting Techniques	The Role Of The Controllership Function
Public Industries			
Textile Industry			
Company 1	2,200	Low	Low
Company 2	330	Low	Low
Food Industry			
Company 1	296	Low	Low
Company 2	130	Low	Low
Hotel Industry			
Hotel 1	373	Low	Low
Hotel 2	170	Low	Low
Private Industries			
Textile Industry			
Company 1	8,000	High	High
Company 2	1,743	High	High
Food Industry			
Company 1	490	Low	Low
Company 2	1,603	High	High
Hotel Industry			
Hotel 1	337	High	High
Hotel 2	134	Low	Low

of controllers is higher than that of the second hotel. This conclusion, therefore, tends to support the theoretical argument of the contingency theory which maintains that as the size of the organization grows, managers rely on accounting information to control the operations of the company rather than relying on direct observations. The general managers of the two small firms on the other hand, spend most of their time watching the operations of their business and holding meetings with the operating managers. In addition to relying on direct observations, the two-owning families tend to install their members in the key positions of these companies. Thus, in the first food company, the board of directors, the general manager and his deputy and some operating managers, are all members of the owning family. Similarly, the owner of the second hotel is the manager too. This may indicate a belief in family involvement in the business as a condition for ensuring better performance, that is, better efficiency and effectiveness. This in turn may suggest that the family-owned-and managed firms in the developing countries substitute the sophisticated management control systems simply by relying on family loyalty and sincerity.

### 9.3.3 Concluding Remarks

The previous discussion on the implications of size for the level of sophistication of management accounting techniques and the role of the controllership function in both the public and the private enterprises seems to confirm hypothesis 6 of the research. Accordingly, the size of the public enterprises seems to have no impact on the role of accounting and accountants in management. Though the first textile company is larger than the other manufacturing companies, and though the size of the first hotel is larger than the second one, yet the level of sophistication of management accounting techniques and the

role of the controllership functions are almost identical in all the six public enterprises.

In the private sector enterprises, on the other hand, our findings tend to suggest that there is a very close link between the level of sophistication of management accounting techniques and the role of the controllership function in an enterprise and its size. Thus, in the two textile companies, the second food company and the first hotel, the level of sophistication of management accounting techniques and the role of the controllership function is higher than that of the two relatively small firms, that is, the first food company and the second hotel. Thus, one could argue that the organization size is the most important variable in the private enterprises to the extent that the role of accounting and accountants in the private sector could be classified according to the size of the organization. The obvious justification for this argument, is that except for size, there are no differences among the private enterprises regarding the other contingent variables. However, this does not imply that the role of accounting and accountants in an organization could be attributed solely to its size. Instead, we are arguing that size is the most important factor in the private enterprises in combination with other contingent factors.

Finally, the conclusion that size has no impact on the role of accounting and accountants in the public enterprises, whereas it is the most important contingent variable in the private enterprises tends to cast doubts and raise questions on the generality of the conclusions of the contingency theory of the MAS on the impact of size. Moreover, the findings of this study warn against the hazards of the measurement of size exclusively in terms of the number of employees which does not necessarily reflect the physical capacity and volume of operations in an

enterprise. This is particularly true in the public enterprises where disguised unemployment is common. Therefore, to supplement the number of employees with another surrogate (e.g. physical capacity) might be a reasonable measure for size.

#### 9.4 The Organization History

The association between the role of accounting and accountants in an organization with some historical changes has been suggested by many empirical studies. Jones (1985), for instance, produces empirical evidence according to which the management accounting techniques in some acquired companies are affected following the acquisition, argues that:

"All management accounting techniques assured significantly greater importance in the acquired companies following acquisition".

Therefore, in line with our findings in the first two case studies, the impact of the historical changes, if any, on the role of accounting and accountants in management in both the public and the private enterprises was investigated. However, because of the nature of this study, one should not expect the researcher to study in detail the impact of these changes over a long period of time. Instead, depending largely on the verbal accounts of the general managers, we will discuss the general implications of these changes for the current level of sophistication of management accounting techniques and the role of the controllership function in some public and private enterprises.

##### 9.4.1 Historical Changes in The Public Enterprises

In the public enterprises no restructuring measures have taken place as was originally expected in the wake of the restructuring changes that took place in the public sugar industry according to the findings of the first case study. As we mentioned earlier only "symbolic changes" have taken place in the public textile companies.

According to these changes, the Public Corporation for the Textile Industries has been renamed as the Public Company for Spinning and Weaving Limited, and was registered under the 1925 Companies Act. The idea, as we said earlier, was to emphasize the commercial goals and to run the public textile companies as private companies. Because these changes are merely symbolic and because our findings in the first case study suggested that change is not that 'easy' in Sudan, it is premature to expect any immediate implications for the level of sophistication of management accounting techniques and the role of controllers in the textile companies. Instead, the impact of this change is a researchable area for the future.

However, the first public food company witnessed some historical changes which had significant impact on its current low sophistication of management accounting techniques and the controllers' involvement in management. This company was originally owned by some private owners of British nationality till 1969. In that year, a military coup took place in the country. In 1970 the company, as well as many others, was confiscated by the new communist regime and was annexed to the public sector. According to the current financial controller of the company who was an accountant at that time, the management accounting systems were dropped immediately on the basis that the previous management of the company maintained inaccurate records and accounts. Later the company was annexed to the Food Industries Corporation. A team from the Corporation then designed the financial accounting and budgeting systems in line with the provisions of the Government Financial Regulations, which were later adopted by the company.

Thus, the drive to 'socialize the economy' was so strong according

to which many privately-owned enterprises were brought into public ownership. Most important, the political ideology of the government at that time forced the government to reorganize the newly-confiscated companies and to get rid of their previous management and accounting systems on the basis that they were biased and invalid to achieve the objectives of the government to run these companies in a better way. This gave way to the introduction of the new government financial and purchases statutes. Needless to say, this had directly affected the level of sophistication of management accounting techniques and the role of controllers as reported in Chapters 6 and 7. Similar experiences, however, are witnessed by other private enterprises in other developing countries which experienced similar political changes. In Ethiopia, for instance, the current communist government got rid of most previous practices of the confiscated private enterprises. Kinfu and Jones (1984), explaining the Ethiopian experience of some private enterprises soon after being taken over by the government, state that:

"When a political economy is subjected to such massive restructuring, insitutions within the economy which are not themselves political in nature, nevertheless, have to adjust to new sources of direction and laws. In the process, they suffer the uncertainties, ambiguities and confusions that inevitably accompany massive change. The organization, methods, procedures of accounting, auditing, and financial reporting are not exempt from these disturbing influences of change".

#### 9.4.1 Historical Changes in The Private Enterprises

In the private enterprises, two companies experienced historical changes which have direct and positive implications for the highly sophisticated management accounting techniques and the active role played by controllers in the management of these enterprises. The first company which witnessed historical changes is the second textile company. In early 1984, the management of the second textile company, which mainly consisted of Sudanese nationals, failed to achieve the

budgeted production, sales, and profit targets for that year, and attributed this to the hard currency problems and the shortage of power supplies. However, the shareholders of the company refused these excuses in their general meeting and sacked the management. The shareholders then replaced the management with a new management team, which is a mixture of Sudanese nationals and expatriates. The key positions such as the general manager, the production manager and the financial controller and his deputy are reserved for the expatriates.

The new management team has given top priority to establishing sophisticated management accounting techniques and improving the role of the controllership function in managing the enterprise. Accordingly, the major duties of the contract of the financial controller, who is a Canadian expatriate and a graduate of the Chartered Institute of Management Accountants (CIMA) were to achieve the following objectives:

- 1 - Financial Control. Which is basically to be concerned with updating the financial accounting statements which were lagging for the last two years,
- 2 - Management Information System. This involves the production of accurate and timely control reports that compare actual with budgeted figures, providing explanations for variances together with action plans,
- 3 - Capital Expenditure. This involves establishing a procedure for evaluating the benefits to the business of all the capital appropriations,
- 4 - Computer Support. This involves the introduction of computer technology to the accounting system and increasing the range of its applications,
- 5 - Procurement and Effective Inventory Management. This involves



establishing and administering a purchasing procedure for all the business needs and establishing the minimum, maximum and reorder points of the inventory levels. According to the financial controller of the company, he discharged all his duties under the contract for the last three years, except for the fifth objective, which is awaiting execution. Therefore, it is beyond doubt that the recruitment of the new management team in general and the Canadian financial controller in particular, had a tremendous and positive impact on the level of sophistication of management accounting techniques and the role of the controller-ship function in the second textile company.

Moreover, the highly sophisticated management accounting techniques and the controllers' involvement in the management of the first hotel (Khartoum Hilton Hotel) partly emerged as a result of the historical events experienced by this hotel. Accordingly, before the hotel started operations in 1978, the owners of the hotel entered into a full management contract with the Hilton International Company, a New York-based hotel company, to manage the hotel for twenty five years. The agreement gave the Hilton International Company the full authority and responsibility for managing the hotel in return for 25% of the gross operating profits for any financial year. The objectives of this full management contract are two-fold. First, to make use of foreign expertise in the hotel management as the Sudanese nationals are less experienced in this area. Second, the image of the Hilton International Company is expected to attract more tourists to the country and boost the tourism industry. It would appear that this full management contract is quite common in Sudan. In the second case study similar practices were reported. Moreover, a South Korean

hotel company is managing a publicly-owned hotel under a similar agreement.

By virtue of this agreement, all the management accounting techniques applied in the hotel are identical to those incorporated in the Hilton International Policy Manual and Standard Practice Instructions, which are used by the Hilton Hotels world-wide. Furthermore, the manual has emphasized the role of the modern controllership in reporting and interpreting the results of operations as follows.

- a) In addition to the preparation of all the financial statements, accounting and statistical reports and any other special reports which may be required by the general manager of the hotel, the comptroller is responsible for the effective interpretation of the said reports, and
- b) The comptroller will assist, in conjunction with the other departments, in preparing both the annual and revised capital budget and profit budget in the format required by the Head Office. In addition to this the comptroller is responsible for reporting the actual results as compared with the profit budget. He is also responsible for maintaining adequate records to reflect the comparison of the actual expenditures for operating equipment and furniture and equipment replacement with the budgeted amounts.

Certainly, therefore, these historical events which led to the management contract in the first hotel have significant and positive implications for the sophistication of management accounting techniques and the role of the controllership function in this hotel.

#### 9.4.3 Concluding Remarks

The previous conclusions tend to confirm hypothesis 7 of the research. Accordingly, the current level of sophistication of management accounting techniques and the role of the controllership function in some public and private enterprises could be attributed to some historical changes which some of these enterprises experienced. Thus, in the first public food company, the sophistication of management accounting techniques and the role of controllers is negatively affected by the fact that the company was confiscated in the early seventies. As a result, it was forced to drop its own previous management accounting systems and adopt those of the government. In the private sector, on the other hand, the level of sophistication of the management accounting techniques and the role of the controllership function in the second textile company and the first hotel are high because of the foreign management involvement in these two enterprises. Our findings, also indicated that the public textile companies are undergoing some changes, though still symbolic, which could be researched in the future to investigate whether or not these changes have any implications for the emphasis on commercial goals and the sophistication of management accounting techniques and the role of the controllership function in these enterprises.

## Chapter 10

### Managerial Factors and the Level of Sophistication of Management Accounting techniques and the Role of the Controllership Function in the Public and Private Enterprises.

In this chapter we will investigate whether or not the difference in the level of sophistication of management accounting techniques and the role of the controllership function between the public and private enterprises, as reported in chapters 6 and 7, could be attributed to some managerial factors. In line with the findings of the first two case studies and our definitions in chapter 5, two managerial variables, that is, managers' education background and the managers' attitudes towards accounting and accountants, are to be investigated along the public - private ownership dichotomy. Furthermore, the analysis of this chapter is mainly based on the responses to the questions put forward by the researcher to the chief executives (general managers and their deputies) of both the public and private enterprises. For further details on this, see Appendix A, sections H and I.

#### 10.1 Managers' Education Background

The theoretical association between managers' education background and the role of accountants in management is well recognized and documented in the contingency approach of organization theory and management accounting systems, as we have already discussed in chapter 5. Research-wise, however, very few empirical studies have been conducted in

this area. (Colson, 1980, Sathe, 1982, and Rikabi, 1984). The conclusions of some of these studies confirmed these theoretical associations, whereas others found weak evidence to support these claims. After all, the conclusions for and against these theoretical associations are merely tentative rather than being conclusive evidence. The theoretical argument for this association is that if the professional managers occupy the top positions of the organizations, then this may guarantee the managers' awareness of the usefulness of the different management accounting techniques, the accounting information and the potential services that controllers could provide. Sathe (1982), for instance, argues that:

"The greater the degree of corporate management's financial background, the greater the degree of typical controller involvement in decision-making."

Still, others maintain that the idea of specialized management in the business organizations is a necessity to cope with the complexity of modern organizations. This may give rise to management as being a distinct profession whose contribution could be recognized among other professions. Waterhouse and Tiessen (1978) suggest that:

"The growth in specialized knowledge and formal training in management, when applied to uncertain environments, will, we believe, increase the extent to which managers demonstrate characteristics similar to other professionals."

#### 10.1.1 Managers' Education Background in the Public Enterprises

Table 10.1 shows the education backgrounds of the chief executives in both the public manufacturing compa-

nies and hotels. A closer look at this table shows that in the Public Manufacturing sector only one chief executive (the general manager of the first textile company) is a graduate of business administration and holds a master's degree from a UK university in the management of the textile industries. However, the table shows that almost all the chief executives of the public manufacturing companies are of an engineering background, whose specialization is either in food or textile technology. Undoubtedly, this in turn indicates the domination of technicians and engineers in the public manufacturing companies. According to the government officials in the public textile and food corporations, the reasons for the domination of engineers and technicians are three-fold. First, it is argued that as all the financial decisions and affairs of individual manufacturing companies are centralized at the public corporation level, then the main emphasis at the 'production unit' level, as its name implies, is on production. This fact has given the production department greater importance and influence, and therefore the production managers are usually seen as the potential chief executives. This argument is further supported by the fact that almost all the present general managers used to be production managers, and the deputy general managers are either the present production managers or used to be the production managers. This indicates that the position of the 'production manager' seems to be the 'take-off' position towards being the chief executive. The second reason for the domination of technicians could be attributed to the promo-

tion policy of these companies. Accordingly, the chief executives are appointed by the Minister of Industry according to their seniority in the terms of their qualifications and the time period which they have spent serving in the public manufacturing companies. As there is a high labour turnover among accountants who emigrate to the Arab oil countries, the engineers find it quite easy to occupy the top positions. The third reason is that a follow-up team headed by an engineer is usually formed to supervise the construction of these factories. In some cases, these engineers are appointed as the chief executive after completion.

Not only that, but the domination of technicians and engineers in the public manufacturing sector is accompanied

Table 10.1: Managers' Education Background in the Public Enterprises

Manuf- Cos and Hotels	No. of Managers Interviewed	Managers' Education Background				
		Engineering	Business Adm.	Accou- ting	Hotel Mgmt.	Others
Manufact. Sector	7	6	1	-	-	-
Hotel Sector	4	-	-	-	1	3

by the lack of appropriate management training in accounting and business administration. All the chief executives in the public manufacturing companies mentioned that they spent a relatively long time (not less than one and a half years) doing some practical and academic overseas training in their areas of specialization, that is, either textile or food technology. This is in line with the training policies of the National Administration for Training which

gives top priority for practical rather than theoretical training, as we discussed in chapter 8. The following data from the Administration on the number of managers trained and areas of specialization tend to confirm this conclusion. See table 10.2. It is worth mentioning that some chief executives have attended some short (two to four months) seminars and lectures on principles of management, finance, costing, marketing, and decision-making. These training courses are arranged by some government training bodies like the Management Development Centre (MDC) and Sudan Academy for the Administrative Sciences. Whether these seminars are up to the level which makes the chief executives appreciate the potential which accounting and accountants could provide, is difficult to tell because this depends on the intensity and syllabus of these training courses and other factors.

In the public hotels, on the other hand, only one chief executive has an education background in hotel management. Two of the other three chief executives are graduates of law and arts, and the third is a graduate of a higher secondary school. However, all the four chief executives of the public hotels are well-trained in hotel management. Each chief executive did a postgraduate study in hotel management and planning for two years in Italy, and graduated from the Institute of Tourism and Hotels (I.N.P) in Rome. This study included both theoretical and applied courses in some hotels in Rome. The emphasis on overseas training in hotel management is deemed as necessary to develop the hotel and tourism industry in the



Table 10.2: Statistics of the National Administration for Training  
for the year '84/85, Unit: Industrial Production Corporation (IPC),  
Textile, Food and Sugar Sections:

Specialization (Area of Training)	Number of Trainees	Period of Training
1- Food Manufacturing,	1 (Msc.),	3 years,
2- Chemicals and spinning,	2 (Msc.),	3 years each,
3- Industrial Relations,	1 (Msc.),	1 year,
4- Spinning and Weaving,	10 (Higher studies),	2 years each,
5- Cost Accounting,	1 (Higher studies),	3 years each,
6- Textile Technology,	4 (Higher studies),	3 years each,
7- Blending ,	1 (Practical Training),	2 years each,
8- Sugar ,	13 (Practical Training),	3 years each,
9- Production ,	1 (Higher Studies)	1 year.

(Source: Dept. of Statistics, the National Administration for Training).

country, which in turn is seen as another source of foreign currency. Moreover, in line with the employment policies of the Hotels and Tourism Corporation, the chief executives of the public hotels used to work in all the departments of the hotel, including the Financial Administration. Two chief executives used to be heads of the Hotels Accounts, which is one of the sections of the Financial Administration.

Finally, it is worth mentioning that all the chief executives of the public enterprises spent all their working experience in the public sector. This is in line with the employment policies of the government according to which a public employee could be transferred from one

company to another, and from one hotel to another. On the other hand, at least two chief executives were ex-government employees and used to work in some central ministries and public corporations. These chief executives joined the public enterprises from the civil service under the pretext that it is all public sector.

#### 10.1.2 Managers' Education Background in the Private Enterprises

Table 10.3 shows the managers' education background in the private manufacturing companies only two chief executives (the deputy general manager of the second textile company and the general manager of the second food company) are reported to have their education background in business administration and have attended several seminars and workshops, both overseas and at home, on management, accounting, and decision-making. Table 10.3, also shows that four chief executives in the private manufacturing companies are engineers. Three of them attended training courses on management and accounting in addition to some courses which they studied as part of the syllabus during their undergraduate studies. However, the fourth engineer (the Managing Director of the second textile company, an Indian expatriate) did postgraduate studies in an Indian management institute, and even showed positive appreciation for the role of accountants when he told the researcher that:

"I can even tell the accountant what to do, because accounting is not book-keeping."

Finally, one of the chief executives in the private manu-

facting companies (the general manager of the first food company), who is also the son of the founder of the business, graduated from a higher secondary school and did not attend any training courses in management or accounting. By virtue of the memorandum of association of the company, this chief executive is to fill the position of the general manager of the company for the rest of his life.

Table 10.3, on the other hand, shows the education background of chief executives of private hotels. Two chief executives, both of them of the first hotel (Khartoum Hilton) are expatriates by virtue of the management agreement which we discussed earlier. Both of them have their education background in hotel management and both of them attended many training courses arranged by the Hilton International company in its Career Development Institute (CDI) on hotel management and hotel accounting. Both executives spent most of their experience in the Hilton hotels worldwide, and one of them used to be an operations analyst. The other two chief executives, both of the second hotel, are graduates of higher secondary schools and received no training on either hotel management or accounting. Both executives have gained their experience in the family enterprises.

Finally, we asked the chief executives of the private enterprises about whether or not their organizations require professional qualifications in business administration or accounting as a prerequisite to fill the top positions. In this respect, only two private enterprises

require professional qualifications as a condition of employing chief executives. Thus, in the second food company, the would-be managing director, according to the job requirements 'should hold a university degree, preferably in business administration, and in addition, he should be acquainted with the problems of production in the food industries, together with along experience in managing the industrial entites'. The second private enterprise is the first hotel (Khartoum Hilton) where both the general manager and his deputy should hold university (or hotel school) degrees to qualify for these positions. The other private enterprises showed less or no enthusiam on professional qualifications as a condition to fill the top management positions. Not only that, but the two relatively small enterprises (the first food company and the second hotel) showed a tendency to put much more emphasis on 'fairmly loyalty' than professional qualifications. As we argued earlier, this reflects a belief among small businessmen in family involvement in the business as a prerequisite for its success. Thus, it is not surprising to find that members of the owning families occupy the major positions in these companies.

Table 10.3: Managers' Education Background in the Private Enterprises

Manuf- Cos and Hotels	No. of Managers Interviewed	Managers' Education Background				
		Engineering	Business Adm.	Accou- ting	Hotel Mgmt.	Others
Manufact. Sector	7	4	2	-	-	1
Hotel Sector	4	-	-	-	2	2

10.1.3 The Implications of Managers' Education Background  
For the Role of Accounting and Accountants in the  
Public and the Private Enterprises

The discussion in the previous two subsections presents the education background and the training of the chief executives in both the public and the private enterprises. The discussion revealed that in both the public and private manufacturing companies the domination of technicians and engineers is quite common. There is no evidence of professional managers specializing in business administration or accounting being employed in top positions. Only very few chief executives were reported to have their education background in business administration. Moreover, most of the engineers and technicians did not attend long-term (year or more) management training courses on business administration, management accounting or decision-making. However, most of the engineers in both sectors have attended training courses on the principles of management and business administration, finance and management accounting and decision-making in some of the government training bodies which arrange such short-term (up to four months) management training and development programmes. In the hotel industry, on the other hand, most of the chief executives of the public hotels are graduates of highr secondary schools, but received long-term overseas training on hotel management, both theoretically and practically. In the private hotels, the chief executives of the first hotel have their education background in hotel management,

whereas the other two chief executives of the second hotel are graduates of higher secondary schools and did not attend any training in hotel management.

These findings, therefore, tend to suggest that there is no evidence to enable us to attribute the different levels of sophistication of management accounting techniques and the role of controllers in the management of the public and the private enterprises as reported in chapter 6 and 7, to the managers' education background and training. This is mainly because the domination of technicians and engineers is quite common in both the public and the private manufacturing companies. Yet, at least three private manufacturing companies (the two textile companies and the second food company) have got sophisticated management accounting techniques and their controllers are involved in management even though most of their chief executives are engineers. Thus, this suggests that there is no link between the managers' education background and the role of accounting and accountants in management. In the hotel industry, on the other hand, the role of accounting and accountants in the public hotels is low despite the fact that their chief executives received proper overseas theoretical and practical training in hotel management and despite the fact that most of them were ex-accountants. In the private hotels it is difficult to draw conclusions on the impact of managers' education background and training because of the foreign influence in the first hotel. But to say the least, the managers' education background and training in hotel management is one among other factors

that have contributed to the high role of accounting and accountants in the first hotel. On the whole, therefore, these findings, tend to suggest that there is no good evidence to confirm hypothesis 8 of the research because there is weak evidence to associate the different role of accounting and accountants in the public and the private enterprises to the managers' education background and training.

However, these conclusions must be considered as tentative only. This is mainly because of the relatively small number of the sample companies and the small number of chief executives interviewed. Nevertheless, this conclusion has enormous implications for the contingency theory of management accounting systems. Certainly, our conclusions tend to contradict the conclusions of the contingency theory on the association of managers' education background and the role of accounting and accountants in management. To say the least, our conclusions tend to question those of the contingency theory of the MAS. Therefore, one could argue that the link between the managers' education background and training and the role of accounting and accountants in organizations should not be taken for granted before being subjected to further empirical research. After all, the domination of technicians and engineers in the top positions of the manufacturing concerns is quite common in both the developing (Rikabi, 1984, Saleem, 1981) and the developed countries.

Horovitz (1980), for instance, states that:

"The educational backgrounds of managers in France clearly shows the predominance of technical training. Over two thirds of top management come from engineering, while it is less than one third in Britain. This high representation of engineers is certainly causal to the emphasis on production control."

Yet, the sophisticated management accounting techniques and the controllers' involvement in management in the manufacturing concerns of these countries is well in evidence (Ronson). Consequently, the attribution of the role of accountants to the managers' education background and training is questionable.

Similarly, our conclusions tend to cast doubts on the logic and the intuitive argument of the contingency theory of the MAS on the impact of managers' education and training on the role of accounting and accountants in management. The fact that some private manufacturing companies have sophisticated management accounting techniques and their controllers are involved in management despite the fact that most of the chief executives of these companies are engineers, raises the unresolved and controversial question of whether managers are born, made or both. Whatever the answer to the question, it would seem that there is a general agreement that managers need to be well-equipped with both theoretical and practical managerial knowledge to perform the function of managing. But, there is no agreement on the level of this equipment. Thus, it is quite possible that an engineer could undergo short-term and intensive training courses and seminars on the usefulness of various management accounting techniques, the uses of accounting information and the services that could be provided by controllers, and still can understand and appr-



eciate the role of accounting and accountants, and consequently sophisticate their accounting techniques, use accounting data and rely on the controllership function to render valuable routine and special services. Therefore, based on our findings in the three private manufacturing companies, one could argue that the domination of engineers in the top management positions does not necessarily mean a lack of appreciation for the role of accounting and accountants and consequently low level of sophistication of management accounting systems and controllers' involvement in management.

Finally, the existence of the difference in the level of sophistication of management accounting techniques and the role of controllers between the public and the private enterprises despite the domination of engineers, has another implication for the contingency theory of the MAS. As we argued in chapter 4, the contingency theory links the management accounting systems to certain contingent variables without assigning the degree of importance of the impact of these contingent variables. Thus, our findings may imply that the impact of the other contingent variables, that is, the degree of government control and the organizational variables, is much more important than the impact of the managers' education background and training. This in turn suggests the need for more empirical management accounting research using the contingency approach with a view to identifying the factors which are likely to be more important than others.

## 10.2 Managers' Attitudes Towards the Role of Accounting Information and Accountants in Management

It has been argued for a long time by the contingency theory of the MAS that the managers' awareness of the potential that accounting information is important for the actual use of accounting data and the role played by controllers. The theoretical argument for this as put forward by the role theory (Katz and Khan, 1978) and the contingency theory is that the role of individuals in an organization could only be explained through the expectations of those who are in control. It is not surprising, therefore, that the appreciation of the role of accounting information and accountants has contributed tremendously to the highly sophisticated management accounting techniques and the rise of the role of the modern controllership function in the developed economies. Fregmen (1976), for instance, referring to this fact in some American companies, states that:

"An empirical reason for this advancement of the accounting profession is the fact that managers have come to appreciate the importance of accounting data and analysis in the effective administration of an enterprise. Thus, the accountant has become a member in good standing of the management team."

### 10.2.1 Managers' Attitudes Towards the Role of Accounting Information and Accountants in Management in the Public Enterprises

To investigate the managers' attitudes towards the role of accounting information and accountants in management, we asked the chief executives of the public enterprises about the degree of importance which they attach to accounting information and controllers in the management of

their organizations. Table 10.4 below shows the responses of the chief executives to this question. Accordingly, the majority of the chief executives of the public enterprises stated that they regarded the role of accounting information and accountants in the management of their organizations as either essential or very important. No chief executive has claimed that the role of accounting information and accountants is of minor or no importance. Therefore, on the surface these responses tend to contradict the findings of chapter 6 and 7. This is because these responses tend to raise a logical question: If those chief executives are aware of the importance and usefulness of the accounting information and controllers in their organizations, why is the actual role of accounting and accountant low in the public enterprises? Our first hand impression is that it is quite probable that the managers of the public enterprises did not mean what they said, and therefore, these responses do not necessarily reflect their consciousness of the importance of the role of accounting and accountants in management. Instead, these responses are only meant to please the researcher. This is particularly true as most of the respondents know that the researcher is of an accounting background. After all, this is a typical Sudanese custom whereby we always try to be nice and sympathetic to the extent which amounts to social hypocrisy.

Table 10.4: Managers' Attitudes Towards the Role of Accounting Information and Accountants in Management of the Public Enterprises

Q: Do you consider the role of accounting information and accountants in the management of your organization as:		
Level of Importance	No. of Managers in the Manufact.Cos	No. of managers in the Public Hotels
-Essential,	5	3
-Very imprtant,	1	1
-Important,	1	-
-of minor importance,	-	-
-of no importance,	-	-

On the other hand, it is possible that the above responses reflect the awareness of the chief executives of the importance of accounting and accountants in management. Even if this is the case, the above question has got to be answered. Therefore, one should think of other factors which are more influential to the extent they precluded the managers from translating their attitudes into actions, that is, improve their management accounting techniques, ask controllers for special and routine accounting information, and using this accounting information for the different manaement purposes. One could think of the tight government control as the most influential factor that have precluded managers from translating their intentions into actions. Thus, it would appear that the chief executives

have no alternative other than the government budgeting and auditing, the chief executives cannot take any initiative on their own to introduce the modern management information systems and they are not authorized to make the major decisions of their companies. In this sense, therefore, the managers' attitudes, even if they meant what they said, represent only personal aspirations. Therefore, one could argue that the managers' positive attitudes do not necessarily guarantee the actual role played by accounting and accountants in organizations. It would appear, therefore, that the managers' positive attitudes towards accounting and accountants is only one out of many variables that would facilitate greater role of accounting and accountants in management.

Another way of investigating the managers' attitudes towards accounting and accountants is to ask them about what they think the financial controller could help them to manage their organizations. In response to this question, the following statements by the chief executives of the public manufacturing companies are typical of many:

"His main job is to participate in estimating and controlling the budget, because I am an engineer and I am acquainted with the financial matters. Therefore, there must be someone who controls the implementation of the financial regulations. For instance, I have to know what is going to happen if we exceeded the budget."

"The head of accounts tells you the position of the various budget items and whether or not you are spending legally. I am personally not acquainted and not used to these government financial regulations because I worked in the private sector. I think that the head of accounts could do this job and it is possible to have one financial controller for each three production units (i.e. companies) at the (Textile) Corporation headquarters rather than having a financial controller in each factory."

and that:

"He tells me about my position and enables me to avoid many financial errors such as obtaining purchases in a way which contradicts the purchases regulation."

When the chief executives of the two hotels were asked the same question, they gave similar responses as follows:

"He helps me to implement the financial regulations, for instance, if a budget item is about to be used up he warns me, if my purchases are not according to the statutes he also directs my attention, he notifies me if any client did not pay, and he also inspects the safe."

and that:

"His job is to control and supervise the accounts and to be acquainted with the financial aspects of the hotel including the expenditure and revenues. His importance for us as a public sector is to control expenditure so that we do not exceed the approved budget. He also notifies me in case some budget items are about to be used up so that we could think of the alternatives."

According to these statements, therefore, it is quite evident that the chief executives of the public enterprises have identified two areas of interest on which they expect the financial controllers to help them. One of these is budget control. The emphasis on budget control by the chief executives largely stems from the objectives of the budget in the public enterprises, which are heavily geared towards estimating the overall state budget and implementing the government fiscal and economic policies. Therefore, exceeding the budget without the authorization of the government means the failure of these fiscal and economic policies and is considered as a legal offence. Therefore, it is not surprising that the chief executives attach higher importance to budget control. The other area

of interest on which the chief executives sought the help of the financial controller is the implementation of the government financial and purchases statutes which are basically designed to protect public money against theft and defalcations. As we have already argued, it is the responsibility of the Auditor General to ensure rigid adherence to these government statutes. Failure to comply with these financial and purchases statutes, is not without serious legal repercussions for the chief executives of the public enterprises. It is not surprising, therefore, that the chief executives made it clear that they expect the financial controllers to keep a close eye on the implementation of the statutes.

Undoubtedly, therefore, these statements tend to indicate that the chief executives of the public enterprises attach higher importance to fulfilling the legal requirements imposed by the external controlling government bodies, including the public corporations and the Ministry of Finance. This in turn suggests that the chief executives' attitudes towards accounting and accountants are negatively affected by the government statutes and their responsibilities to the other external government bodies to the extent that they give top priority to discharging their responsibilities towards the external government bodies rather than emphasizing the role of controllers in internal reporting to management. In this sense, therefore, one could argue that the chief executives' negative attitudes towards the role of accounting and accountants in management have contributed, among other factors, to the low

level of sophistication of management accounting techniques and the role of controllers in management, as reported in chapters 6 and 7. These attitudes towards controllers reflect the external orientation of the chief executives of the public enterprises in the sense that they are affected by their external environment, which is characterized by tight government control. It is not surprising, after all, to find that chief executives are externally-oriented in their attitudes, as managers' themselves are products of their environment (Khandawalla, 1977, Bobbit and Ford, 1980).

Finally, a third way of investigating the managers' attitudes towards the role of accounting and accountants is to ask them about whether or not they have got a job description for the position of the financial controller in their organisations and its contents, if any. These job descriptions represent the formal expectations of the chief executives and are only a gesture of appreciating the role of accounting and accountants. In all the public manufacturing companies there are no formal job descriptions for the financial controllers or the other top positions. When the researcher asked for the job description of the financial controllers, we received the following responses:

"We used to have one designed by the Corporation (Food Industries Corporation). But right now we have no job description."

and that:

"Go to the Corporation (Textile Corporation) and ask them. They will give you a job description designed by the Egyptian specialists of the Arab League."



In the two public hotels, the job description of the financial controllers is designed by the Hotel and Tourism Corporation which manages the public hotels. The job description identified the following main responsibilities to be performed by the financial controllers.

- 1- Inspections- Which involves the inspection of the cash revenues of the previous day and the follow-up of their collection,
- 2- General Accounts- Which includes issuing and signing cheques necessary to pay for the daily purchases, to inspect the invoices of contractors, electricity, water, ... etc and to issue the payment thereof, and to prepare the monthly pay sheet and the payment thereof,
- 3- Budget and Subsidiary Books- Which mainly involve maintaining the budget and the other books of accounts and the budget control,
- 4- Monthly Report- This involves the preparation and submission of the monthly Consumption of Provision report (See chapter 7) to the Hotels and Tourism Corporation,
- 5- Final Accounts- This refers to the preparation and submission of the annual financial statements to the Hotels and Tourism Corporation to help prepare the annual report submitted to the President of the Republic on the results of the financial activities of the Corporation,
- 6- Safekeeping Memos and Letters. This involves keeping and answering all the letters coming to his department from the corporation and the other government bodies, and
- 7- Stock-taking, which includes the stock-taking of the stores, refrigerators, and the frequent and regular stock-

taking of the hotel safe. ,

A closer look at this job description, which to a greater extent explains the actual role played by controllers in the public hotels as we discussed in chapter 7, shows that it is designed to carry out the objectives of the government financial statutes to safeguard public money against theft and defalcations. It is not surprising, therefore, that the description emphasized the role of the financial controllers in signing and authorizing cheque and cash payments and receipts, controlling the hotel budget and the frequent stock-taking of the hotel safe. Another interesting point about this job description is that it emphasized the role of the financial controllers of the hotels in preparing the monthly and annual accounting reports for the use of the Hotels and Tourism Corporation, and failed to refer to the responsibilities of the financial controllers towards the internal management of these hotels in providing the routine and special accounting reports. Generally speaking, the lack of formal job descriptions for the financial controllers in the public manufacturing companies, and the concentration on routine work and preparing accounting reports for the external government bodies in the job descriptions of the hotels, may indicate the low expectations of the chief executives of the public enterprises towards the role of accounting and accountants. This in turn, among other factors, may have contributed to the low sophistication of management accounting techniques and the role of controllers in the public enterprises.

10.2.2 Managers' Attitudes Towards Accounting Information  
and Accountants in the Private Enterprises

Table 10.5 shows the degree of importance which the chief executives of the private enterprises attach to the role of accounting and accountants in the management of their organizations. Accordingly, almost all the chief executives of the private enterprises, as in public enterprises, stated that they think that the role of accounting and accountants in management is essential. On the surface, these statements indicate the awareness of the chief executives of the usefulness of accounting and accountants in the management of their organizations. This awareness is translated into action in four private enterprises (the two textile companies and the second food company and the first hotel) where the actual role played by the accounting information and accountants is high, as discussed in chapter 6 and 7. However, the responses of the chief executives of the other two private enterprises (the first food company and the second hotel) have to be treated with suspicion. Our findings in chapter 6 and 7 indicated that the level of sophistication of management accounting techniques and the role of controllers is low in these two enterprises. This in turn raises the same question which we asked in connection with the public enterprises: if the chief executives of these enterprises meant what they said, why is the actual role of accounting and accountants in these two enterprises low?

Two possibilities could be put forward to answer this question. First, it is possible that the chief executives meant only to please the researcher, and therefore, their responses do not necessarily reflect their awareness of the usefulness and importance of accounting information and accountants, as we argued in connection with the public enterprises. Second, attaching higher importance to the role of controllers in management does not necessarily mean and guarantee their actual role in management in the way we defined in chapter 5. Chief executives may have their own expectations which are not necessarily identical to the definitions of the modern concept of the controllership function as we argued earlier in chapter 5. For this reason we solicited the managers' opinion on the areas in which they think controllers could help. Thus, the chief

Table 10.5: Managers' Attitude Towards the Role of Accounting Information and Accountants in Management of the Private Enterprises:

Q: Do you consider the role of accounting information and accountants in the management of your organization as:		
Level of Importance	No. of managers in the Manufacturing Cos	No. of Managers in the Private Hotels
-Essential,	7	3
-Very Important,	-	-
-Important,	-	1
-Of Minor Importance, or	-	-
-Of no importance.	-	-

executives' views in the four private enterprises where the actual role of accounting information and accountants is high, tend to reflect their appreciation for the potential services which the financial controllers could provide.

The following statements of three chief executives of the two textile companies and the second food company (respectively) are suggestive.

"The financial controller formulates the monthly cash forecast, because it is he who formulates the budget, and he also tells you how to finance the company. Moreover, as they have got a costing section, he provides cost information which is useful for the pricing decision."

"Since all transactions are translated into monetary terms, the financial controller has to monitor the operations in terms of money on a timely basis and provide information which keeps us well-informed about the budget. He also tells us when we should pay the installments of the raw materials."

and that:

"The financial controller is like the mirror because he reflects the performance of the company, and unless this performance is reflected quantitatively, the business becomes meaningless. He also acts as an adviser and does the financial control. Also the financial administration is responsible for the stores and tells us when to buy the raw materials."

The chief executives of the first hotel, on the other hand, enumerated three areas in which they think the hotel controller could hold them. These include reporting the results of operations (budget follow-up reporting), to evaluate capital expenditure projects and to give advice on tax, room rates, banks and general matters.

These statements suggest that the chief executives of these private enterprises have acknowledged the role of the controllers in the management of their enterprises and this

in turn has advanced the role of the controllership function and management accounting techniques in these private enterprises. However, a closer look at these statements suggests that some chief executives put some emphasis on the role of controllers in procuring raw materials. This indicates that the managers' attitudes towards the role of accountants are affected by the problems which their organizations face. By the same token, the chief executives of the first textile company, which faces financing problems, tend to refer to the role of the financial controller in preparing the cash flow forecasts which show the deficit which has to be financed. These findings, therefore, tend to suggest that the attitudes of the chief executives towards the role of controllers, though positive, nevertheless are affected by the problems of a developing economy (e.g. hard currency and the financing problems). In this sense, therefore, one could still argue that the chief executives of the private enterprises, like their counterparts in the public sector, are externally-oriented.

Similarly, we investigated the chief executives' opinions in the other two private enterprises where the actual role of accounting information and accountants is low. The chief executives of the first food company emphasized the role of the financial controller in the procurement of raw materials and the pricing decision. One chief executive said in this respect that:

"The financial controller calculates the costs of the raw materials and he opens the letter of credit. He then submits the costs of raw materials to the Costing Department which in turn calculates the prices of the different food products."

Thus, the chief executives of the company failed to recognize the wide spectrum of services which accounting and controllers could provide. Their emphasis on the role of controllers in the pricing decision is mostly in response to the requirements imposed by the Industrial Costs and Pricing Administration, as we discussed in chapter 7. When asked the same question, the two top managers of the second hotel gave the following statements regarding the areas in which they expect controllers to help them.

"The financial manager is an important part of the hotel administration, and no hotel can operate without a financial controller."

and that:

"He helps me to control the financial revenues of the hotel and to calculate the paysheet, sales and income taxes, and the monthly telex and telephone rates."

These statements reflect the low expectations of managers towards the potential that controllers could provide. This is because the chief executives of the hotel either failed to identify the areas on which they expect controllers to help, or emphasized his role in record-keeping and the calculation of the different taxes and rates payable to the government. Therefore, their definition and concept of the role of controllers does not coincide with that of the modern controllership function even when they claim that it is essential. Therefore, the low expectations of the chief executives of these two private enterprises tend to explain, among other factors, the actual low role played by the accounting information and accountants in these two enterprises.

Finally, we also investigated the managers' attitudes towards accountants as stipulated in the job descriptions of the financial controllers in the private enterprises. Thus all the four enterprises where the role of accounting and accountants is high, have got detailed job descriptions for this position. The job description for the financial controllers of the first textile company, and the second food company, is part of the policies and procedures manuals of these companies. The job descriptions emphasized the role of the financial controllers in internal reporting through the implementation and operationalization of the financial planning and control systems within the framework of the annual budgets. Most important, these job descriptions emphasized the role of controllers in maintaining and providing suitable cost information that could be used in applying to Industrial Costs and Pricing Administration for price changes. In the second textile company, the job description of the financial controller is contained in the contract of the Canadian expatriate, which we referred to in chapter 9, section 9.4.2. Moreover, the job description of the comptroller of the first hotel (Khartoum Hilton) is included in the Standard Practices Manual of the hotel. To avoid the problems of conflicting loyalties to the Head Office in NewYork and the hotel general manager, the manual made it clear that "such a situation can usually be resolved to the satisfaction of both the comptroller and the general manager by referring to Hilton International's Policy Manual and Standard Practice Instructions."

To a greater extent, the actual role played by the



financial controllers in these four enterprises is similar to their responsibilities as written down in these job descriptions. Of the other two private enterprises (the first food company and the second hotel) only the first food company has got a formal job description for the financial controller of the company. The job description emphasized the role of the controller in maintaining adequate accounting records for all the activities of the company, authorizing the financial payments, and obtaining hard currency for the purposes of purchasing the production inputs (spare parts and raw materials).

#### 10.2.3 Concluding Remarks on the Impact of the Managers' Attitudes Towards Accounting and Accountants

The previous discussion on the impact of the managers' attitudes towards accounting and accountants on the actual role of accounting information and accountants in both the public and private sectors, to a limited extent, tends to support the intuitive argument of the contingency theory of MAS regarding the link between the managers' attitudes and the actual role of accounting and accountants. Thus, the statements of the chief executives and the formal job descriptions of the financial controllers in both sectors, explain the actual role played by accounting and accountants as we discussed in chapters 6 and 7.

However, there is no good evidence that the the actual role of accounting and accountants is different in the public and the private enterprises because, among other reasons, the managers of the public enterprises maintain

negative attitudes towards accounting and accountants and those in the private sector maintain positive attitudes towards accounting and accountants. The reasons for this are two-fold. First, the chief executives of both the public and the private enterprises attached higher importance to the role of accounting and accountants in management. It is quite possible that the chief executives of the public enterprises did not mean what they said, and they only meant to please the researcher. Thus, it is very difficult to judge the managers' attitudes because of the measurement problems encountered in operationalizing this variable. On the other hand, it is possible that the chief executives of the public enterprises meant what they said. In this case, one could argue that positive attitudes on their own do not necessarily guarantee high role for accounting and accountants, and one should think of other variables which are more influential like the tight government control, which reduced the managers' positive attitudes to mere aspirations.

Second, in soliciting the chief executives' opinions on the areas in which they think that accounting and accountants could help them, the managers of both the public and the private enterprises were found to be externally-oriented. Thus, the attitudes of the chief executives in the public enterprises were affected by their responsibilities towards the external controlling government bodies. The chief executives' attitudes in the private enterprises, on the other hand, were affected by the problems of the environment in which they operate, even when they emphasized

the role of controllers in internal reporting. On the whole, therefore, these findings tend to disconfirm hypothesis 9 of the research.

Alternatively, however, these findings suggest the need for a more rigorous research method to investigate the managers' attitudes towards the role of accounting and accountants in management. In view of the problems encountered in investigating the managers' attitudes towards accounting and accountants through direct interviews, it is quite evident that acting as a participant observer is the best research method to investigate whether or not managers attach any importance to the financial controllers and accounting information in controlling the operations of the company and the decision-making process.

PART FOUR: IMPLICATIONS OF THE RESEARCH  
FINDINGS

## Chapter 11

### Implications of The Research Findings

From the beginning, this study has emphasized the potential role of management accounting and accountants in accelerating the economic development of which the "economically depressed countries" are in desperate need. This is because there is unanimous agreement that accounting and accountants could help the enterprises of the developing countries to utilize their resources as efficiently and effectively as possible.

Close investigation of the accounting literature on the developing countries revealed that the bulk of this literature consists of the first hand impressions and observations of some Western writers and that much empirical work has been devoted to the investigation of the professional and financial accounting practices. Very few empirical accounting studies concentrated on the role of management accounting and accountants in the enterprises of the developing countries. In view of the shortage of empirical management accounting research in the less developed countries, the need for studies like this became obvious.

This study examined the role of management accounting and accountants in fourteen public and private enterprises, representing three manufacturing industries and a service industry, were investigated in the Sudan. The study is basically meant to be a comparative one along the public-private ownership dichotomy. A significant number of chief executives, financial controllers, and middle managers were interviewed by the researcher.

To bring this study to a conclusion, it is vital to highlight the implications of the research findings. Accordingly, Section 11.1 will present a general look at our work within the context of the developing countries' study of management accounting research. Taking into consideration the major research objectives outlined in the first part of the thesis, we will discuss the theoretical implications of the research findings for the current state of knowledge on management accounting systems and controllership functions in the developing countries. Section 11.2 discusses the limitations of the study and their implications for future research. Finally, in Section 11.3 we will discuss the policy implications of the research findings for the Sudan Government with a view to developing management accounting systems and controllership functions in the public and private sector enterprises.

#### 11.1 Theoretical Implications for The Management Accounting Studies in The Developing Countries

While the bulk of the developing countries' studies of management accounting tend to conclude that the role of management accounting and accountants is very low (See Chapter 1), the conclusions of this study tend to suggest that the role of management accounting and accountants is low in the Sudanese public enterprises and high in the private enterprises (See Chapters 6 and 7). Detailed and brief discussion of the factors contributing to this difference was given in Chapters 8, 9 and 10.

One implication of these findings, therefore, is that they represent a point of departure from the conclusions of the current descriptive and empirical management accounting studies in the developing countries. In this sense, the conclusions of this study tend to indicate a new trend according to which the role of management accounting and accountants in a developing country depends largely on the status of the organization, that is, whether it is a public or a private sector enterprise. In addition, this indicates the hazards of overgeneralization of the conclusions of the current body of knowledge which are largely based on the personal impressions and observations and very few empirical studies.

Thus, in the public sector enterprises the advanced management accounting systems and controllership functions are lacking. Instead, the public enterprises are forced to adopt the government financial statutes like other government departments under the pretext that all is public sector. Moreover, the role of the controllership function is heavily geared towards sending periodical and irregular production and accounting reports to the supervising government bodies. The major characteristic features of public enterprises is that public ownership gives rise to the government's desire to tighten control on these enterprises and make them put more emphasis on the political and social goals in line with the economic and social development plans of the government. These in turn have negatively affected the sophistication of the financial control systems of public enterprises (See Chapters 8 and 9). The findings of this study, therefore,

tend to confirm the previous conclusions and produce an empirical evidence for the inadequacy of the financial control systems of public enterprises in the developing countries.

Referring to this situation, Boodho (1983) argues that:

"There is abundant evidence to indicate that one of the major weaknesses in the planning, management and evaluation of public enterprises in developing countries lies in the absence of up-to-date and relevant management information systems."

In the relatively large private enterprises, on the other hand, there is a good evidence from the research findings that genuine attempts are made to introduce and make full use of the modern management accounting and information systems and that the controllership is involved in internal reporting to management and decision-making. In some cases private enterprises made use of the foreign management expertise. Private enterprises, therefore, have transferred in both advanced technology and managerial know-how. The introduction of sophisticated financial control systems is facilitated by the facts that they are managerially autonomous from the government apparatus, pursue commercial goals and are relatively large (See Chapters 8 and 9). In comparison to the current state of knowledge on management accounting in developing countries (See Chapter 1), these findings indicate a nucleus of development of the management accounting systems and controllership functions in the developing countries. In this sense, one could argue that the development of management accounting systems and controllership functions in a developing economy is going through the same process experienced by the developed countries during early stages of economic development.



Scott (1970), for instance, referring to the experience of the developed countries in this respect, states that:

"When accounting development began in advanced nations, sophisticated management accounting system, techniques and knowledge were not in existence. Therefore, accounting in these nations only slowly acquired higher standards and advanced techniques".

The case of the two private family-owned and managed (the first food company and the second hotel), however, indicates a very interesting phenomenon in a developing society. In pure quantitative terms, both enterprises could be classified as large. Theoretically speaking, one could expect these two private enterprises to have sophisticated management accounting systems and controllership functions along the intuitive arguments of the contingency theory of MAS (See Chapter 5, Section 5.3.6). However, this is not the case as Chapters 6 and 7 suggested. Our findings showed that the members of the owning families are located in different positions throughout the different management levels to control the operations of these two small firms (See Chapter 10, Section 10.1.2). This in turn implies that in a developing society, where the concept of the extended family is quite common, some family-owned and managed enterprises may replace the Western sophisticated management accounting and control systems with family involvement and loyalty even when these firms are relatively large in pure quantitative terms. This is less likely to be the case in a developed society where the nuclear family is dominant. This does not imply, however, that the application of sophisticated management accounting systems and controllership functions are not needed for

effective and efficient operations in organizations.

Though different, the financial control systems in both public and private sector enterprises were found to be closely associated with some hypothesized contingent variables as demonstrated by the research findings (See Chapters 4, 8 and 9). This in turn tends to support the general case of the contingency theory of MAS which currently dominates management accounting literature (See Chapter 4). Viewed within the context of the developing countries' studies of accounting, these findings suggest that the contingency theory of MAS is useful in understanding the financial control mechanisms in both public and private sector enterprises in the developing (and developed) countries. Also, the use of the contingency theory of MAS for empirical management accounting research in the developing countries would help to guide the policy implications for the development of the management accounting and information systems, as will be seen in Section 11.3

Despite the fact that the general case of a contingency theory of MAS is supported, the research findings tend to indicate that the impact of some contingent variables on the financial control systems of both public and private enterprises is influential enough to limit the effect of other contingent factors. These dominant factors include the tight government control in the case of the public enterprises (See Chapter 8) and size in the case of the private enterprises (See Chapter 9). The research findings also cast doubts on the impact of size on the design of financial control systems in the public enterprises. Similar conclusions were reached with respect to the impact of managers' education background and attitudes on the financial control systems in both sectors as there is

no evidence of any association, (See Chapter 10). The findings of this study, therefore, question the crudeness of the contingency theory of MAS as suggested by the current state of knowledge (See Chapter 4). These findings, therefore, imply that the static contingency theory of MAS is questionable, but some dominant and influential factors are still important in understanding the financial control systems in organizations.

Finally, due to the lack of using the research case study approach in management accounting research in developing countries and having used this alternative research strategy, we now turn to discuss its theoretical implications. To begin with, one has to discuss the wide range of potentials which this alternative research approach has provided to help conduct this study. The preparation of the two research case studies at the first stage of the research had helped the inexperienced researcher to be more specific in posing the research problem and question in comparison to only the broad definition available before conducting the pilot field work. Moreover, based on the analysis of the two case studies, the researcher managed to construct a research model which proved to be helpful in directing the research in the second stage, integrating the research findings, orientating the future research and guiding the policy implications of the research findings. Additionally, the two case studies had directed the researcher's attention to new contingent variables such as the degree of government control and organization goals, which previous management accounting researchers in the developing countries did not adequately consider. The findings of this study, therefore, make prospective accounting researchers in

the developing (and developed), countries aware of and consider the availability of alternative research approaches which are also useful, analytical and rigorous. However, this does not imply a claim that this alternative research strategy is the best, and consequently, does not represent a call for an immediate drop of the other accounting research approaches. This is because, as Tomkins and Groves (1981) argue:

"The research style adopted must depend on the nature of the research problem and the underlying ontological assumptions upon which that problem was constructed."

#### 11.2 Limitations of The Study and Implications for Future Research

Like any other empirical research, the resources available for this study are scarce. Therefore, in selecting the sample industries and companies, the researcher used certain criteria with a view to avoid the limitations of the previous management accounting studies in the developing countries (See Chapters 1 and 5). Yet, this does not mean to claim that these problems are completely eliminated. Though this empirical study is conducted at two different stages and covers a reasonable number of industries and companies in a developing country, nevertheless, the conclusions of this study could have been more meaningful and generalizable had it involved a bigger sample of companies rather than matched pairs of public and private enterprises in the major industries. In view of this relatively small sample size, therefore, great care should be taken in interpreting the conclusions of this study and overgeneralization of findings of a single study should be avoided. By the same token, the results of this study could have been

more meaningful, interesting and generalizable had it involved other developing countries along this public-private ownership dichotomy. As it is a fact of life to work within constraints, the significance of this study, however, stems from the fact that it reflects the management accounting and accountants' practices in some selected industries and companies in a developing country (Sudan), provokes more discussion on the ways and means of developing management accounting systems and controllership functions in a developing country and paves the way for further empirical management accounting research in the developing countries.

As we have already argued, the major contribution of this study is that it indicates that the role of management accounting and accountants in the Sudanese enterprises depends largely on the ownership of the enterprise, that is, whether it is a government-owned or privately-owned enterprise. This new trend encourages more empirical management accounting research in the developing countries along the public-private ownership dichotomy. This potential research area is very important and interesting as the descriptive literature (textbooks) tends to suggest that most of the practices of the public enterprises in the developing countries are similar. In such research, potential management accounting researchers could make use of the lessons learned from this study. These are basically the usefulness of both the research case study approach and the contingency theory of MAS. In using the contingency theory of MAS, two points should be taken into consideration. First, because the contingent variables incorporated in the research model (See Chapter 4)

are based on the analysis of the two case studies, some contingent variables suggested by the literature, such as technology and the number of accountants, are not included. Potential researchers could take them into consideration. Second, acting as a participant observer would ensure the collection of more reliable data on the managers' uses of accounting data and the role of the controllership function (See Chapter 7) and managers' attitudes towards accounting and accountants (See Chapter 10).

The findings of this study tend to suggest that the influence of foreign management in some private enterprises could not be ignored. Moreover, the enactment of the investment encouragement Acts in Sudan has given rise to the existence of some foreign firms which are owned and managed by foreign investors. Therefore, another potential research area for prospective management accounting researchers in Sudan and other developing countries is to conduct a comparative study on the role of management accounting and accountants in the companies which are owned and/or managed by the nationals and those which are owned and/or managed by a foreign management. The above research approaches could be used in this research area as well.

Another interesting research area identified by this study is the investigation of the future implications of putting more emphasis on commercial goals in the public textile and sugar (See Chapters 2 and 9) companies for the role of management accounting and accountants in these sectors. Because these changes have just started, the researcher was not in a position to investigate these implications as these

changes are so far symbolic. Therefore, these changes represent an interesting experimental research area of a before-and-after nature. The findings of this study could be considered as the basis for such a research, as they represent the "before changes" situation.

Finally, it is desirable to relate some contingent variables to the design of management accounting systems, which in turn could be related to organizational efficiency and effectiveness (Otley, 1980). Though we argued throughout the thesis that the application of modern management accounting systems and controllership functions are essential for efficient management of enterprises, it is very difficult, if not impossible, to combine these two stages in one study (Otley, 1980). Therefore, on the basis of the findings of this study, a potential researcher could investigate whether or not the private enterprises with sophisticated management accounting systems and controllership functions are more efficient than their counterparts in the public sector where the role of management accounting and accountants is low. To make this potential research area more feasible, two points should be highlighted. First, because of the different measures of efficiency in the public and private sector enterprises (Turk, 1984), the comparison should be restricted to economic efficiency using strict economic indicators rather than socio-economic indicators. Second, to conduct a "like with like" comparison, it is very important to confine such a study to the public and private manufacturing companies which are more or less faced with the same macro-economic problems. To say the least, the importance of such a study is that it

will enrich the privatization, debate in Sudan, as will be discussed in the next section (See the discussion in Sections 11.3.1.1 and 11.3.1.2).

### 11.3 Policy Implications for The Sudan Government

Having investigated and discussed the management accounting and accountants' practices in the Sudanese public and private enterprises, the final and vital question which arises is: What are the policy implications of the research findings for the Sudanese Government as a policy-maker which could help in the development of the management accounting systems and controllership functions in both sectors. Evidently, an empirical management accounting research in developing country like this study, is incomplete unless it presents appropriate suggestions that could help solve the problems of management accounting and advance the role of the controllership function in the management of business organizations. Jaggi (1973) argues in this respect that:

"Intensive research is needed to gain more insight into the problems of developing countries and to provide them with suggestions for improving their accounting practices."

and that:

"Research in this area (i.e. accounting research in the developing countries) is not complete until it leads to improvements in accounting practices and accelerates accounting development to aid in accomplishing the economic development of these countries."

The idea of developing the role of management accounting and accountants at the enterprise level, is inextricably linked to the vital role of management accounting systems and controllership functions in the achievement of rapid economic development in the less developed countries (See Chapter 1).



This is because the potentials of management accounting and accountants in the efficient and effective operation of the enterprises of the developing countries, and consequently the efficient utilization of scarce resources, are enormous. Therefore, the role of management accounting and accountants at the firm's level represents the corner stone in achieving the economic development objectives of the developing world. Farmer and Richman (1964) argue in this respect that:

"Since a country's total production will be the sum of production of component productive enterprises, the more efficient each firm is, the more efficient the country will be."

Similarly, Jaggi (1973) argues:

"Economic development results from the economic efficiency of firms."

Indeed, the presentation of proposals to solve the management accounting problems are urgent if the objectives of economic development in the developing countries are to be achieved at all. Despite this fact, the bulk of the accounting literature has been devoted to the discussion of developing the professional and financial accounting practices in the developing countries (e.g. Seiler, 1966, Bait El-Mal et al, 1973, Jaggi, 1973 and Parker, 1984). Few or no guidelines are put forward to help tackle the problems encountering the development of management accounting systems and controllership functions in the developing countries. Even the researchers who investigated the role of management accounting and accountants in the developing countries rush to sum up their findings and identify new researchable areas, without putting forward any suggestions to develop these systems. Without discussing how, several researchers seemed to be in favour of

transferring Western accounting techniques, concepts and standards to the developing nations as a means of improving the professional and financial accounting practices. To achieve this objective, Scott (1970), for instance, suggests that the developing countries should:

"Adopt, more or less in toto, the accounting practices of a particular advanced nation."

Similar views are expressed by Kordi (1979) who argues that:

"Certainly, there is nothing intrinsically wrong with borrowing scientific knowledge and know-how from those who have them. We live in an era greatly earmarked by inter-cultural exchange in almost every aspect of life. Simply, if we allow ourselves to import American Cadillacs, French perfumes, and Japanese television sets, then why cannot we borrow accounting concepts and adopt them within the context of environmental issues?"

It is the contention of the researcher that the empirical management accounting research in a developing country should not be only an academic exercise. Detailed description of the management accounting systems in a developing economy does not help very much in developing these systems as a means of accelerating economic development. Instead, empirical management accounting research in a developing country should be used as a solid platform for the development of management accounting systems and controllership functions. Therefore, to avoid the limitations of the current body of knowledge on management accounting systems in the developing countries, another uniqueness of this study is to propose the policy implications necessary to develop the controllership function and discuss them with the concerned policy makers in the Sudan.

To do so, we have to extend Kordi's (1979) question, as posed above, to the application of the Western management

accounting techniques and systems and the controllership functions in the developing countries' enterprises. This is because, by the same token, there is no point in transferring highly sophisticated Western technology without transferring the sophisticated management accounting systems necessary to manage this technology. Also, unless the corresponding managerial know-how is transferred as well, the transplanting of advanced Western technology in the developing countries could be a "wrong transfer of technology" and could dash the hopes of any economic development through industrialization. Having emphasized the need to adopt Western management accounting techniques and systems, the next question which arises is: What is required to transfer Western managerial know-how and controllership functions to the Sudanese public and private enterprises?

Since the researcher is primarily concerned with the improvement of the controllership function and the sophistication of management accounting systems in both sectors, the contingency model which guided this empirical study presents both the constraints and opportunities for this development. This is because as the appropriate features of any management accounting system and controllership function depend on the circumstances in which an organization finds itself (i.e. the essence of the contingency theory of MAS), any attempt to improve them has to deal directly with the contextual variables identified by the research findings as constraints (for further details, see Chapters 8 and 9).

After all,

"One needs to have a good description of the context within which accounting is to work before one attempts normative prescription" (Tomkins and Colville, 1984).

The contingency model, therefore, will be helpful in proposing solutions to tackle the problems accompanying the introduction of modern management accounting techniques and controllership function in organizations. Sathe (1982), for instance, argues that:

"These factors (of the contingency framework) may be seen as determining the constraints and opportunities for controller involvement."

Similarly, Parker (1984) suggests the use of the contingency model to improve the professional accounting practices in the developing countries.

"This contingent model also provides a conceptual basis for evaluating proposed strategies for the cultivation of improved accounting practices in a developing country."

The policy implications of the research findings will be discussed in two separate stages. In Stage One, that is, Section 11.3.1, we will discuss a package of measures necessary to pave the way for improving the management accounting systems in the public sector enterprises. These measures are basically derived from the peculiarities of this sector as suggested by the research findings (See Chapters 8 and 9). In addition to what could be inferred from the research findings, these recommendations will take into consideration the current government policy towards restructuring (privatizing) the public manufacturing sector. In Stage Two, that is Section 11.3.2, we will discuss other policy measures. In addition to improving the sophistication of management accounting systems and controllership functions in the private enterprises, measures of Stage Two will complement those of the first stage and are hoped to help

achieve the same objective in the public sector enterprises.

11.3.1 Stage One: Policy Implications for the Development of The Management Accounting Systems and The Controllership Functions in The Public Enterprises

Undoubtedly, the question of how to improve the management accounting systems and controllership functions in the Sudanese public enterprises is not an easy one at all. This is because any genuine attempts in this respect have to address four complicated, interrelated and controversial issues which were identified by the research findings and which are applicable with varying degrees to the management of the public enterprises in both developed and developing countries (See Chapters 8 and 9 for further details). These debatable issues include the current privatization trend, the goals to be pursued by the public enterprises, the government-public enterprise relations, and the accountability of the public enterprises. We now turn to address these four questions.

11.3.1.1 Privatization?

The privatization debate had recently become common in both the developed and developing countries in connection with the management of the public sector enterprises. Sudan, as a developing country, is not an exceptional case. The privatization debate in Sudan had resulted in the restructuring measures to manage the public sugar (See Chapter 2, Section 2.1) and textile (See Chapter 9, Section 9.2.1) factories and the government's attempts to sell off the two food companies to the private sector (See Chapter 6, Section 6.2.1.1).

Therefore, the privatization debate in Sudan has aroused the researcher's considerable interest to set this work within this general privatization debate. Having said that, two major points have to be emphasized before any further discussion.

First, as the privatization issue is a huge area and is not the principal emphasis of this study, the following discussion is strictly based on what could be supported by and inferred from the research findings reported in the previous three parts. Second, the discussion will concentrate on the privatization debate in so far as it is directly related to the discussion of the development of the management accounting systems and the controllership functions in the public enterprises in line with the main thrust of the thesis.

The privatization programme in Sudan, like other developing countries, is faced with the problems of overstaffing in public enterprises (See Chapter 9, Section 9.1.1) and the lack of capital markets which have a crucial role in fostering any transfer of public enterprises to private ownership (Aylen, 1987 and Young, 1986). The research findings suggested that the financial performance of the public enterprises is poor (See Chapter 6, Section 6.8 and Chapter 7, Section 7.3.2.2). Therefore, it is possible that the potential investors in the private sector, whose major goal is profit-making (See Chapter 9, Section 9.1.2), will not show interest in the loss-making public enterprises when offered for sale. Therefore, the improvement of the efficiency and financial performance of the public enterprises is important to attract the potential private investors and pave the way for successful privatization in Sudan. Some developing countries in Latin America

found it important to improve profitability of their public enterprises to make them more attractive to the private sector. Hanson (1959), referring to the experience of these countries at early stages of economic development, states that:

"The company form is clearly indicated when a government starts an enterprise which it intends to sell, partly or wholly, to private investors as soon as profits become sufficiently attractive. Many of the enterprises thus established by General or Industrial Development Authorities in Latin America and elsewhere are scheduled for eventual sale to the private sector."

Similarly, Aylen (1987) argues that:

"A programme of privatization in a developing country is really a programme for reform. State enterprises that are closely integrated into government bureaucracy need to be separated off. An independent board, financial autonomy and operating freedom are first steps towards improved efficiency and eventual private ownership (privatization)."

Having established the importance of improving efficiency of public enterprises for successful potential privatization in Sudan, the next question is how to achieve this objective, that is, how to improve operational efficiency. Management accounting systems and controllership functions, as a means of collecting and communicating economic data, are a vital tool to improve efficiency of public enterprises. Boodho (1983) argues in this respect that:

"The setting up of an effective integrated management information and control systems within an established framework of mutual respect and understanding between the government and the enterprise managements could lead to a higher level of performance capability in public enterprises in third world countries."

In addition to the other pre-requisites identified by the Western scholars (Young, 1986 and Aylen, 1987), therefore, one could argue that improving the sophistication of the management accounting techniques and controllership functions in

public enterprises is another pre-requisite for successful privatization in Sudan.

Having discussed the implications of the privatization debate in Sudan in terms of financial control systems, this does not imply that the researcher is in favour of privatization in Sudan. Also, we must warn against jumping to easy conclusions on the benefits of privatization in Sudan on the basis of our observations on financial control mechanisms alone. There is no evidence from this study that the private enterprises are more efficient than the public enterprises. That was not the purpose of the study. Moreover, there is inconclusive evidence even in Britain, which is set as an example for the other developing and developed countries, that privatization inevitably improves efficiency (Tomkins, 1987). Instead, this discussion is basically meant to contribute to the current privatization debate in Sudan in terms of the role of the controllership function. Privatization or no privatization, it seems that there is a need to improve the efficiency of public enterprises in the developing countries. The report of the British Overseas Development Administration for 1984 appears to highlight this need for efficiency improvement in the public enterprises of the developing countries to accelerate economic development.

"It is important that the public sector should improve its resource planning and decision-making processes, raise the technical competence and efficiency of its institutions and find more cost effective delivery systems."

Certainly, there is no best way to achieve these objectives other than developing the controllership function in the public enterprises. This is the emphasis of the rest of the chapter.



#### 11.3.1.2 Politicization or Commercialization of Goals?

The research findings indicated that the pursuit of political and social goals, rather than commercial goals, is one of the factors which contributed to the less sophisticated financial control systems in the public enterprises (See Chapter 9, Section 9.1.2). Therefore, any attempt to develop the management accounting systems has to address this issue. In this respect, the researcher is strongly in favour of putting more emphasis on commercial goals and making the pursuit of the other political and social goals secondary. The arguments for this are three-fold.

First, because of the poor financial performance of the public enterprises which is partially attributed to the pursuit of political and social goals (See Chapters 6, 7 and 9), the government was dissatisfied and decided to emphasize commercial goals as part of the restructuring measures in the public sugar and textile sectors (See Chapters 2 and 9). In this sense our suggestions match the current policy of the government. However, the research findings tend to make it clear that the government measures in this respect are so far merely symbolic. There is still more confusion on the principal goal among the government officials across the ministerial, public corporation and public enterprise levels (See Chapter 9) and that the pricing decision is still made on a purely political basis (See Chapters 7 and 8). Second, the pursuit of commercial goals in the public enterprises is a must if both efficiency and financial performance are to be improved. The research findings tend to suggest that it is very difficult, if not impossible, to reconcile the political and social goals

with those which are commercial (See Chapter 9, Section 9.1.1).

Finally, there is no evidence that the benefits of pursuing the political and social goals could justify the poor financial performance of the public enterprises. This could be inferred from the government's move to put more emphasis on commercial goals. Though established within the development context, the public enterprises failed to generate surplus funds that could be used to finance further investment and accelerate economic development. The following quotations from the Five Year (1970/75) and Six Year (1976/82) Plans of Economic and Social Development are illustrative -

"The financial performance of the public sector enterprises registered deterioration."

"The past record of financial performance of public enterprises clearly indicates that their net contribution to domestic capital formation has been minimal."

Instead, there is good evidence from the research findings that public enterprises sustained huge losses (See Chapter 6, Section 6.8) and that they represented a heavy burden on the public treasury through the huge government subsidies (See Chapter 8, Section 8.4) which in turn triggered the current privatization tendency.

However, it should not be inferred from the poor financial performance of the public enterprises that they are less efficient than the private enterprises. This is because there is no conclusive evidence from this study that the private enterprises are more efficient than their counterparts in the public sector on the basis of difference between the two sectors regarding the sophistication of management accounting systems as reported in Chapters 6 and 7. The reasons for this are three-fold. First, the emphasis of this study was not on whether or not the private sector is more efficient in an

economic sense than the public sector. This may require a separate study (See Section 11.2 above). Second, measures of efficiency of public enterprises of the developing countries are quite different from those of the private sector (Ramanadham, 1984, Likierman, 1984, Turk, 1984). Thus, in addition to the normal economic indicators used to measure the efficiency of the private enterprises, a range of socio-economic indicators is essential in measuring the efficiency of the public enterprises of the developing countries. Third, there are other factors that affect financial performance and economic efficiency over and above the level of sophistication of management accounting systems (Otley, 1980, Sathe, 1982).

To operationalize the pursuit of commercial goals in the public enterprises, a profit target should be set up. In this respect, we recommend the use of the 5% interest on capital invested (See Chapter 6, Section 6.8.1) as an annual profit objective. The supervising Ministry (e.g. Ministry of Industry in the case of the manufacturing sector) should hold the public enterprises' management responsible for the achievement of this profit objective provided that managerial autonomy is guaranteed and the macro-economic problems are solved, which are part of this integrated package of measures. Failure to achieve this profit objective should be investigated by the supervising Ministry and satisfactorily justified by the public enterprises' management.

Together with the following policy measures, the emphasis on the commercial goals is expected to contribute to the sophistication of management accounting techniques in the

public enterprises. Thus, it is hoped that the emphasis on commercial goals in the public enterprises will create the managers' natural feelings of profit-making and cost-consciousness which in turn will induce the application of sophisticated cost accounting techniques.

#### 11.3.1.3 What is The Optimal Government-Public Enterprise Relations?

The research findings suggested that the public enterprises are subject to excessive government controls which negatively affect commercial operation as well as the level of sophistication of financial control systems. Having put more emphasis on commercial goals the next question which immediately arises is: What is the optimal government-public enterprise relationship which would enable them to achieve their commercial goals and ensure public accountability. This question involves the most challenging and controversial theme in the developing countries because of the desire to give public enterprises managerial autonomy on one hand, and ensure public accountability on the other (Ramanadham, 1984). As the recent restructuring measures in the public textile and sugar sectors indicates that the government is in favour of allowing greater managerial autonomy (See Chapters 2 and 9), the lessons learned from this study could guide the government policies in this respect.

Accordingly, the researcher strongly recommends the abolition of the government financial and purchases statutes to improve the controllership function and enable public enterprises to operate efficiently and commercially (See Chapter 8, Section 8.1). They could be replaced by internal

policies and procedures manuals, like those adopted by the private enterprises. By the same token, the strange budgetary links between the Sudanese public enterprises and the government (Premchand, 1984) should be abolished. This is because this fiscal budgeting is used to develop the state budget and control expenditure and is not useful as a basic cost accounting technique that could be used for planning, control and performance evaluation (See Chapter 6, Section 6.2.1 and Chapter 8, Section 8.1). However, as budgets of public enterprises show annual deficits (See Chapter 8, Section 8.4), it is difficult to abolish this budgetary link within a short period. Still, public enterprises could maintain two sets of budgets, one to suit commercial operation and the other to satisfy the government requirements, in the same way as in Sudan Railways Corporation (Alim et al, 1978).

Moreover, the government should not intervene in the major decision areas in the public enterprises. In particular, public enterprises should be free to fix the prices of their products on a purely commercial basis, subject to the approval of the Industrial Costs and Pricing Administration like their counterparts in the private sector. As public enterprises in a developing country could not be expected to be completely autonomous (Boohdo, 1983), government intervention should be restricted to the investment decisions (See Chapter 8, Section 8.3) and appointment of management. Even appointment of directors should not justify political appointments or the appointment of civil servants and ex-army officers (See Chapters 2 and 10).

On the whole, therefore, easing the government control on public enterprises in this manner is expected to reverse

the negative impact of the tight government control on the financial control systems as discussed in Chapter 8 and pave the way for the development of the management accounting systems and controllership function.

#### 11.3.1.4 How to Ensure Public Accountability?

Being established within the government economic and social development plans (See Chapter 8, Section 8.3), ministerial control over public enterprises is inevitable to ensure public accountability. For instance, the Ministry of Industry could be responsible for ensuring public accountability of the public manufacturing sector. However, this ministerial control should be confined to the specific decision areas discussed above (See Section 11.3.1.4) together with performance evaluation. It should be stressed at this point that failure to restrict the government control to these few and specific decision areas, may endanger managerial autonomy of public enterprises and accountability of managers for financial performance (Ramanadham, 1984), and consequently, the development of sophisticated management accounting systems (See Chapters 8 and 9).

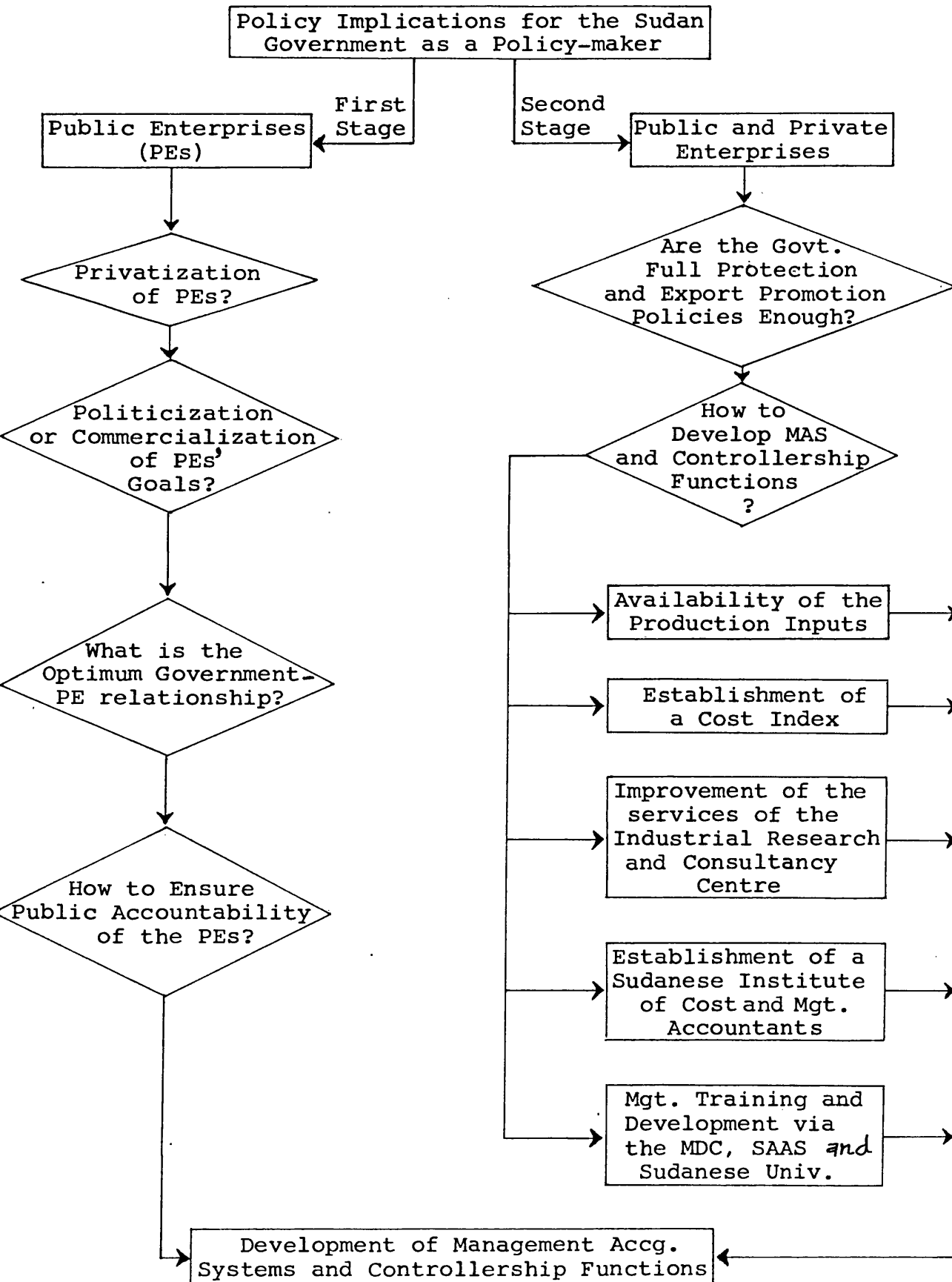
Additionally, the Chamber of the Auditor General could take part in ensuring public accountability of public enterprises. The best way to do this is to conduct the efficiency audit as stipulated in the New Bill (See Chapter 6, Section 6.9) in addition to the statutory audit. To do so, the Chamber should be staffed with qualified personnel capable of conducting such modern concept of auditing in all public enterprises and on annual basis. Certainly, the efficiency audit, together

with the other initiatives in this integrative model, could induce managerial efficiency in the public enterprises and in turn could motivate managers to maintain sophisticated management accounting and information systems. The initiatives in the two stages are diagrammatically depicted in Figure 11.1.

#### 11.3.2 Stage Two: Policy Implications for The Development of The Management Accounting Systems and The Controllership Functions of The Public and Private Enterprises

As the research findings tend to indicate, the government adopts the full protection policy with a view to enabling local manufacturing industry to flourish. This in turn has created a less competitive environment in the country (See Chapter 8, Section 8.6). While this is essential to protect the infant domestic industry against the fierce foreign competition, it should not be abused to promote operational inefficiency in both public and private manufacturing industries. As the pricing condition is not adhered to in adopting the full protection policy (See Chapter 8, Section 8.6), this has significantly induced inefficiency in producing the various products. The result is that the prices of some products are two times those of their foreign counterparts. This fact has two serious repercussions. First, given this inefficiency, one could question the benefits of the import-substitution strategy of the government which justifies the full protection policy (See Chapter 8, Section 8.6). The second repercussion is that the local consumer is paying the price for the inefficiency of the local producers. This is because producers, particularly in the private sector, get 15% as a guaranteed profit margin over and above the actual costs of production

Fig 11.1: A Normative Model for the Development of Management Accg. Systems and Controllership Functions in The Public and Private Enterprises





(See Chapter 8, Section 8.6). Consequently, the objectives of price control by government in protecting consumers (See Chapter 8, Section 8.2) are questionable.

The research findings also indicated that the cost-competitiveness of the Sudanese export-oriented products is very weak if compared to the likely competitors in the international yarn counts market (See Chapter 8, Section 8.2). The fact that the second private textile company sells its products well below the actual costs of production, which are relatively higher, illustrates this point. A similar situation is likely to arise when the country starts exporting sugar in the near future (See Chapter 3). A cost comparison study between Sudan and its competitors in the world sugar market tends to suggest that the cost-competitiveness of the country is very weak (Alim et al, 1978). Again if this situation is not changed, the export promotion policy of the government will be endangered. This in turn will significantly reduce the hard currency proceeds from exports, of which the country is in desperate need (See Chapter 8, Section 8.2).

Thus, it is imperative that the Sudan Government endeavours to bring down the costs of production and improve operational efficiency of the import-substitution and export-oriented industries. Certainly, there is no best way to do this other than developing the modern management accounting and information systems in these domestic industries. This is because:

"No organization can operate efficiently and effectively in the absence of a system of information that guides management." (Boodho, 1983).

The government, therefore, should take the necessary steps to develop the modern management accounting and information systems in both sectors. In this respect, the research findings could provide the government with helpful policy guidelines to improve the sophistication of the management accounting techniques and controllership functions. The first two initiatives are expected to push managers to improve operational efficiency and consequently maintain highly sophisticated management accounting systems. In the third initiative, the government could contribute directly by designing the sophisticated management accounting techniques in both sectors through its Industrial Research and Consultancy Centre. In the last two initiatives, the government could contribute to the development of the controllership function through the appropriate training for managers and cost and management accountants.

#### 11.3.2.1 Availability of The Production Inputs

The research findings suggested that one of the major macro-economic problems of the sample industries is the shortage of production inputs such as raw materials, spare parts and electricity supplies, which are mainly attributed to the hard currency problems (See Chapter 7, Section 7.3.2). This had resulted in capacity underutilization and inefficiency at production (See Chapter 6, Section 6.7) and the external orientation of chief executives and financial controllers (See Chapter 10, Section 10.2). This in turn had distracted the managers' (and controllers') attention from asking for (and preparing) and using accounting data to chasing the

government's officials to solve these problems.

Amidst these circumstances, the problems of improving efficiency are forgotten or underestimated. As the government maintains full control over the major supply sources (See Chapter 6, Section 6.7 and Chapter 7, Section 7.3.2), it has to take responsibility for making these production inputs available. Certainly, this will not only help these companies utilize the wasted capacity and achieve objectives of import-substitution, but it will enable chief executives and financial controllers to be internally-oriented and devote more time to tackling the problems of promoting operational efficiency in their organizations. This in turn could induce the application of the sophisticated cost accounting techniques such as the use of the EOQ for inventory control (See Chapter 6, Section 6.7) and the improvement of the services of the controllership function.

#### 11.3.2.2 Establishment of A Cost Index

Another practical approach to developing the management accounting systems in both sectors is to stick to the pricing condition in adopting the full protection policy (See Chapter 8, Section, 8.6). Accordingly, if the production costs of the local producer are higher than those of their foreign counterparts, the profit margin fixed by the Industrial Costs and Pricing Administration should be 5%. This will penalize the local producer for inefficiency and push him to be more efficient. If the production costs of the local producer are lower than those of the equivalent foreign products, then the profit margin could be increased to 15% to reward the local

producer and motivate more efficiency.

Additionally, sticking to the pricing condition in implementing the full protection policy should be accompanied by establishing a Cost Index for each different product. This Cost Index should contain the expected (standard) controllable and uncontrollable, fixed and variable costs of production in a similar way to the KSC Sugar Costs Index established by Lonrho Limited (See Chapter 3, Section 3.4.1.3). To be accepted by all the interested parties, this Cost Index could be estimated by the concerned government bodies like the Industrial Costs and Pricing Administration and the Quality Control Administration, both of the Ministry of Industry and representatives of the public and private enterprises. Because of the ever-increasing inflationary pressures on the domestic manufacturing industries, this Cost Index could be amended occasionally upon increases in the inflation or sharp devaluation of the Sudanese pound.

Having established this Cost Index, it should be used by the Industrial Costs and Pricing Administration as the standard and the basis upon which prices are to be fixed. Any deviation from this Cost Index should be thoroughly investigated by the Administration and satisfactorily justified by the applicants. By all means this Cost Index is far better than processing the costs produced by the applicants in a rubber stamp fashion without having independent cost estimates (See Chapter 8, Section 8.2). Moreover, the government could enact a Price Commission Act that incorporates this Cost Index. Such an Act should stress the need to promote efficiency instead of broad guidelines which do not take any notice of

efficiency. While this Cost Index is expected to induce the need for promoting operational efficiency and develop the management accounting systems in the public enterprises, it is expected to achieve similar objectives in the small private enterprise sector as well. As far as the large private enterprises with sophisticated controllership functions are concerned, this Cost Index could induce them to maintain more sophisticated cost accounting techniques such as standard costing systems.

#### 11.3.2.3 Improvement of The Services of The Industrial Research and Consultancy Centre

The Industrial Research and Consultancy Centre was established in 1965 by the United Nations Industrial Development Organization (UNIDO). Among other objectives, the Centre was mainly established to help in applying the modern Industrial Management Information Systems in both manufacturing sectors.\* The research findings suggested that the Efficiency Improvement Unit for the Public Industrial Sector Corporations, especially created by the Centre to achieve this objective in the public sector, failed to achieve this objective (See Chapter 6, Section 6.5 and Chapter 8, Section 8.1). Therefore, the government could improve the services of the centre by solving its staffing problems. The need for the services of this Centre is desperate in the public enterprises which rely exclusively on the services of the Centre (See Chapter 6, Section 6.5 and Chapter 8, Section 8.1). In the private sector, on the other hand, the services of the Centre are equally needed, particularly in the small enterprises where most of the modern

\* The Industrial Research and Consultancy Centre Act, Sudan, Khartoum, 1980.

management accounting and information systems are lacking (See Chapters 6 and 7).

#### 11.3.2.4 Advancement of Management Training and Development

Though our findings do not suggest that the management education background or training is a constraint in introducing the management accounting systems in either sector, management training and development would definitely improve the managers' attitudes towards the role of the controllership function in business organizations. After all, as Dorian (1974) states:

"A financially-oriented management staff will help to get a cycle of information-request, information-production, information-use, and information-improvement started."

This objective could be achieved through the government specialized training institutions. Of particular importance is the role of the National Administration for Training which co-ordinates management training in public enterprises and offers limited overseas training chances to private enterprises. (See Chapter 8, Section 8.5). To ensure better management training, this Administration should extend its training programmes to other courses directly related to the functions of management and controllership rather than just concentrating on technical training which is directly related to the production process (See Chapter 10, Section 10.1.1). Additionally, accountants should be involved in the long-term overseas training courses to equip these enterprises with qualified cost and management accountants.

Moreover, regular training programmes could be provided by the other government training institutes such as

Management Development Centre (MDC), Sudan Academy for the Administrative Sciences (SAAS) and the Accounting and Business Administration Departments in the Sudanese Universities. For better management training, two steps are deemed necessary. First, the training syllabus of these institutions must be intensified and emphasize the functions of management accounting and controllership functions in business organizations. Second, better management training can be achieved if the teaching case studies are used as a training material (Ray, 1977).

#### 11.3.2.5 Establishment of A Sudanese Institute of Cost and Management Accountants

Finally, another approach to the development of the management accounting systems and the controllership functions in the public and private enterprises, is the establishment of a professional Sudanese Institute of Cost and Management Accountants. The fact that the KSC (the second case study, Chapter 3) and the second private textile company (See Chapter 9, Section 9.4.2) have employed expatriate cost and management accountants indicates the demand for these professionally-qualified accountants. The move towards professional education in cost and management accounting is another alternative to accounting development in the developing countries. Scott (1970) argues that:

"The major alternative is to effect a relatively clear break with accounting tradition in developing nations and to attempt to develop accounting with a fresh start on the basis of the standards of accounting education, practices and professionalism."

This professional body could be modelled after the UK Chartered Institute of Management Accountants (CIMA) as other developing countries, like India (Jaggi, 1970), did.

A joint examination scheme with the UK CIMA would ensure the credibility of this professional body, and consequently, better training for cost and management accountants in the country. This professional institute (curricula and staff) could be financed by some international organizations conducting similar projects in Sudan like the UNIDO (See Section 11.3.2.3) and the World Bank which is sponsoring the possibility of establishing a Sudanese Association of Certified Accountants. In the meantime, the Sudanese Universities and Polytechnics could increase the number of professional cost and management accountants by teaching the syllabus of the British CIMA for the Sudanese candidates and prepare them for the examinations.



## APPENDICES AND BIBLIOGRAPHY

APPENDIX A

THE INTERVIEW GUIDELINES

I INTERVIEW GUIDELINES OF THE CASE STUDIES

A: THE FINANCIAL CONTROLLERS

- (1) Does your company prepare long-term (that is, more than one year) budgets?
  - If yes, what are the activities covered by the budgets?
- (2) Does your company prepare short-term (that is, one year or less) budgets?
  - If yes,
    - What are the types of these budgets?
    - Could you please tell me in some details about the budgeting process in your company? and
    - May I have a look at the latest budgets prepared in your company?
- (3) In your opinion, to what extent does the top and middle management in your company emphasize the importance of these budgets and participate in their estimation?
- (4) Does your company have an established cost accounting system?
  - If yes,
    - Who introduced the system? and
    - What are the objectives of the system?
- (5) Does your company apply a standard costing system?
  - If yes,
    - For which cost items, and divisions (or departments) do you establish cost standards?
    - Who is responsible for the establishment and review of these standards? and
    - What are the objectives of these standards?

(6) Does your company have an internal audit department?

- If yes,

- Does the Chief Internal Auditor produce any reports?

And if so, to whom does he send them?

- What are the objectives of the department?

- How many employees are there in the department? and

- Does top management believe that this department is an important part of its internal control system?

(7) Do you utilize computers in your organization?

- If yes,

- Do you use computers in recording the company transactions?

- Do you use computers in the payroll system?

- Do you use computers in inventory control?

- Do you use computers in producing control reports?

- Do you use computers for any other purposes?

And if yes, for what purposes?

- If no, have you any plans to introduce the computer in your company in the future?

(8) In your opinion, what are the top management attitudes towards the role of the Financial Controller in the management of your organization?

(9) Do you think that top management is aware of the valuable services which financial controllers can provide?

(10) In your opinion, to what extent does top and middle management rely on accounting data in the management of your company?

(11) Do you think that the education background of top management affects its need for and the use of accounting data?

- If yes,
  - How? and
  - To what extent?

(12) Is there a formal job description for your position?

- If yes, may I obtain a copy of it?

(13) Do you submit any accounting reports or information to the top or middle management in your company?

- If yes,
  - What sort of accounting reports and/or information?
  - How frequently?
  - To whom do you submit these reports?
  - May I have a look at these accounting reports and/or information?
  - Do you think the top and middle management in your organization use this accounting data and/or information?  
And for what purposes?

(14) In your opinion, what are the most important decisions in your organization?

(15) At what level are these decisions made?

- At the top level,
- At the middle level, or
- Outside the organization.

(16) Could you please tell me in detail how these decisions are made?

(17) Do you think that you could help in making these decisions?

- If yes, how?
- If no, why not?

(18) Does top management believe that you could help in making these decisions?

(19) Does top management in your organization ask for accounting information

to make these decisions? \*

(20) What is your actual role in making these decisions? Do you participate in making these decisions?

- If yes, how and to what extent?

- If no, why not?

B: TOP MANAGEMENT

(1) When did your company start operations?

(2) What is the size of your company in terms of the number of the workforce?

(3) How is your company organized in terms of divisions and departments?

(4) Has your company got an organization chart?

- If yes,

- How detailed is it?

- Could you please comment on it?

- May I obtain a copy of it?

(5) In your opinion, what is the principal goal of your organization?

(6) What is your basic education background?

(7) Have you any professional qualification, experience or formal training in accounting and/or business administration?

- If yes, could you please tell me more about it?

(8) Where did you work before joining the company?

(9) Do you think that accounting information and accountants can help you in managing your organization?

- If yes, how?

- If no, why not?

(10) Do you think that you need accounting information?

- If yes, for what purposes?

- If no, why not?

(11) Do you actually receive accounting reports and/or information?

- If yes,
  - How frequently?
  - What is the structure of these accounting reports?
  - Do you think that these accounting reports are accurately prepared and received on a timely basis?
  - Do you find it difficult to understand these accounting reports? And if so, do you need the accountants' help?
  - Do you use these accounting reports? And if yes, for what purposes?

- (12) In your opinion, what are the main decisions which you make in your organization?
- (13) Do you think that you need accounting information and the accountants' help to make these decisions?
- (14) Do you ask for accounting data to help you make these decisions?
- (15) Does the financial controller participate in making these decisions?
  - If yes, how and to what extent?
  - If no, why not?

C: MIDDLE (PRODUCTION AND SALES) MANAGEMENT

- (1) In your opinion, what is the principal goal of your company?
- (2) Where did you work before joining the company?
- (3) Do you participate in estimating the company's budget?
  - If yes,
    - How and to what extent?
    - On what basis do you estimate the budget?
- (4) What is your basic education background?
- (5) Have you got any professional qualification, experience or formal training in accounting or business administration?
  - If yes, could you please tell me more about it?
- (6) Do you think that accounting data and accountants could help you in

managing your organization and department?

- If yes, how and to what extent?

- If no, why not?

(7) Do you think that you need accounting data?

- If yes, for what purposes?

- If no, why not?

(8) Do you actually receive accounting data or information?

- If yes,

- How frequently?

- What sort of accounting data?

- Do you think that these accounting reports are accurately prepared and submitted on a timely basis?

- Do you find it difficult to understand these accounting reports? And if so, do you think that you need the Accountants' help to understand these accounting reports?

- May I have a look at these accounting reports?

- Do you use these accounting reports?

And if yes, for what purposes?

(9) In your opinion, what are the major decisions in your organization?

(10) Do you think that there is a need for accounting data and accountants' help to make these decisions?

(11) Do you participate in making these decisions?

- If yes, how and to what extent?

- If no, why not?

(12) Does the financial controller participate in making these decisions?

- If yes, how and to what extent?

- If no, why not?

## II THE INTERVIEW GUIDELINES OF THE SECOND STAGE OF THE RESEARCH

### SECTION A: THE LEVEL OF SOPHISTICATION OF MANAGEMENT ACCOUNTING TECHNIQUES. THIS SET OF QUESTIONS TESTS HYPOTHESIS 1

(Only the financial controllers of companies are required to answer the questions of this section)

#### I LONG-RANGE PLANNING TECHNIQUES

1. Does your company have a formal system of long-range (that is more than one year) planning?
  - If yes, does your company have long-range plans (budgets) for the following activities?
    - Production
    - Sales
    - Capital expenditure, and
    - Profit.
  - If no, why not?

#### II SHORT-RANGE PLANNING (BUDGETING) TECHNIQUES

2. Does your company prepare a detailed short-range budget (that is, for one year or less), for the following activities?
  - Production
  - Sales
  - Capital expenditure
  - Cash, and
  - Profit.
3. If you prepare a production budget, how do you estimate it?
  - Technical studies by engineers (specialists)
  - Market and economic studies
  - Prior year's figures plus or minus a fixed percentage
  - Estimation based on experience, or



- Outside consultants

4. If you prepare a production budget, do you prepare a detailed estimate for the following cost items?

(i) Direct material ----- Cost -----Quantity

(ii) Direct labour ----- Cost -----Quantity

(iii) Factory Overheads.

5. How frequently do you prepare the production budget?

- Weekly

- Monthly

- Quarterly

- Biannually, or

- Annually.

6. If your company prepares a production budget, how frequently do you review it?

- Weekly

- Monthly

- Quarterly

- Biannually, or

- Annually.

7. If your company prepares a sales budget, do you usually classify sales by:

- Products

- Departments

- Sales regions and districts, or

- Class of customers.

8. If your company prepares a sales budget, on what basis do you estimate the sales figures?

- Past sales trends adjusted

- Correlation of company sales with general economic indicators

- Market surveys
- Production capacity
- Estimation based on experience, or
- Outside Consultants.

9. If your company prepares a sales budget, how frequently do you prepare and review it?

- Weekly
- Monthly
- Quarterly
- Biannually or
- Annually.

10. If your company prepares a short-term profit budget, how do you estimate it?

- Do you estimate it for each department?
- Do you estimate it for the company as a whole?
- Do you divide the budget by products (services) ? or
- Do you use other methods? (Please specify)

11. If your company prepares a short-term profit budget, how frequently do you prepare and review it?

- Weekly
- Monthly
- Quarterly
- Biannually or
- Annually.

12. Do you conduct a detailed analysis for cost-volume-profit relationship?

13. If your answer to question (12) is yes, how frequently do you conduct such analysis?

- Weekly
- Monthly

- Quarterly
- Biannually or
- Annually.

### III FLEXIBLE BUDGETING

14. Do you identify the fixed and variable components of the following cost items?

- Direct materials
- Direct labour
- Factory overheads
- Selling expenses, and
- General and administrative expenses.

15. If you identify the fixed and variable elements for any of these cost items, which of the following techniques do you use?

- Direct estimates based on experience
- Industrial engineering analysis
- Graphic analysis, or
- Others (Please specify).

16. Do you prepare flexible budgets in your company?

- If yes,
  - How frequently?
  - For which departments (divisions)?

### IV CAPITAL BUDGETING TECHNIQUES

17. Does your company have established capital budgeting techniques?

- If yes, which of the following techniques do you use?
  - Net Present Value (NPV)
  - Internal Rate of Return (IRR)
  - Accounting Rate of Return (ARR) or
  - The Payback Period Method.

V COST ACCOUNTING SYSTEMS

18. Does your company have an established cost accounting system?

- If yes, who introduced the system?

VI STANDARD COSTING SYSTEMS

19. Does your company have an established standard costing system?

- If yes,

- Which of the following cost items are subject to standards?

(i) Material ----- Cost ----- Quantity

(ii) Labour ----- Cost ----- Quantity

(iii) Overheads.

- Which of the following individuals and departments participate in setting standards?

- Direct manager responsible for the activity involved

- Industrial engineers

- Accounting Department, or

- Standards Department.

- What are the objectives of the system?

- Used for control purposes

- Used for decision-making purposes (e.g. pricing decisions)

- Used for performance evaluation

- Used for the development of sound budgets, and

- Used for other purposes (please specify)

VII INVENTORY PLANNING AND CONTROL SYSTEMS

20. Do you plan your inventory requirements from raw materials?

- If yes,

- Do you plan the inventory requirements in terms of:

- Cost
- Quantity, and
- Time?
- Do you use the Economic Ordering Quantity (EOQ) technique for inventory planning and control purposes? And if no, why not?

#### VIII PERFORMANCE EVALUATION TECHNIQUES

21. Do you measure profitability in your organization?
- If yes, which of the following techniques do you use?
    - Return on Investment (RoI)
    - Residual Income (RI)
    - Absolute Amounts of Profits, or
    - Others (please specify).

#### IX THE AUDIT FUNCTION

22. Does your company have an established internal audit department?
- If yes,
    - To whom does the chief internal auditor report?
      - To the company's financial controllers
      - To the company's general manager
      - To others (please specify)
    - What are the objectives of the Internal Audit Department?
      - Safeguard the company's assets
      - Check the accuracy and reliability of the company's data and records
      - Promote the company's operational efficiency, and
      - Encourage adherence to the managerial policies and procedures of the company.

23. Is your company externally-audited?

- If yes, which of the above objectives does the external auditor perform?

X COMPUTERIZATION OF THE ACCOUNTING ACTIVITIES

24. Has your company introduced computer technology to the accounting activities in your company?

- If yes, which of the following accounting activities are computerized?

- Billing
- Payroll systems
- Inventory control system
- Control reports
- General ledger
- Others (please specify)

- If no, does your company intend to computerize these accounting activities in the near future?

And if no, why not?

SECTION B: THE ROLE OF THE CONTROLLERSHIP FUNCTION IN THE MANAGEMENT OF ENTERPRISES. QUESTIONS OF THIS SECTION TEST HYPOTHESIS 2.

(Financial Controllers and Managers (both Chief Executives and Middle Managers) are required to answer these questions).

M = Managers (both Chief Executives and Middle Managers)

FC= Financial Controllers, and

B = Both managers and financial controllers.

1.(M) Do you participate in setting budget estimates and discussions?

- If so, how and to what extent?

2.(M) How do you know whether you (or a subordinate) are (is) doing a good job?

(i) Is it done by the assessment of your (his) performance by methods which do not depend on accounting measures? or

(ii) Is it done by seeing how your (his) performance matches with the standard from the accounting reports?

3.(B) Do you receive (produce)\* any accounting reports and/or information?

- If yes,

- What types of accounting reports do you receive (produce)?

- Can I have a look at them?

- How frequently and regularly do you receive (produce) these accounting reports?

4.(M) What is your general impression about these accounting reports?

- Do you think that they are satisfactory?

- Do you think that their contents are limited and would be more meaningful if more accounting information were included?

- Do you think that you receive them on time?

5.(FC) Do you interpret these accounting reports to managers?

- If yes, how?

- If no, why not?

6.(M) Do you use these accounting reports?

- If yes,

- How? and

- For what purposes?

- If no, why not?

\* ( Words between brackets are put to the financial controllers where a question is to be answered by both the financial controllers and managers (B). )

- 7.(M) Are you very concerned with the budget adverse variances in your company or department?
- No
  - Generally yes, but may be tolerated occasionally, or
  - Yes, unfavourable variances are thoroughly investigated.
- 8.(M) Do you rely on these accounting reports and/or information to know the operating problems that your company or department may encounter, such as machine breakdown, fire, etc.?
- If yes, how and to what extent?
  - If no, why not?
- 9.(FC) Do you think that managers use the accounting reports and/or information which you submit to them?
- If yes,
    - What makes you think so? and
    - For what purposes?
  - If no, what makes you think so?
- 10(B) Where in the organization does a problem concerning the following arise?
- (i) Production
  - (ii) Price-setting, and
  - (iii) Investment.
- 11(B) At what level are these decisions made?
- Are they made inside the organization? And how?
  - Are they made outside the organization? And by whom?
- 12.(B) Are there any committees especially formed to make these decisions?
- If yes,
    - How many committees? and



- Is the financial controller (Are you) a member of these committees? And if so, what is his (your) role?

13.(M) Do you ask the financial controller to make special accounting studies to help you make these decisions?

- If yes,
  - How frequently? and
  - Do you get them?
- If no, why not?

14.(FC) Does top management ask you to prepare special accounting reports to help them make these decisions?

- If yes,
  - How frequently?
  - Do you submit them?
- If no, why not?

15.(B) Does the financial controller (do you) participate in making these decisions?

- If yes, how?
- If no, why not?

16.(M) Apart from the accounting reports mentioned above have you got any informal contacts with the financial controller in your company?

- If yes, what is the nature of these informal contacts?  
And how frequently?

17.(FC) Roughly speaking, what is the percentage of time which you spend on each of the following accounting activities?

Accounting Activities	%
1. Book-keeping	
2. External reporting to government	
3. Internal reporting to management	
4. Others (please specify)	

SECTION C: THE DEGREE OF GOVERNMENT CONTROL. QUESTIONS OF THIS SECTION TEST HYPOTHESIS 3.

(Both financial controllers and chief executives are required to answer this set of questions.)

1. Has your company any relationship with a government body?
  - If yes,
    - Which government body (ies)?
    - What is the nature of this relationship?
2. Has the government any say in the following aspects of your organization?
  - If yes,
    - Could you explain in detail how and to what extent?
    - What is the source of the government control over these aspects of your business?
  - If no, why not?

THE DECISION AREAS

- Forms of accounts, the accounting treatment of financial transactions and the accounting systems.
- Setting the budget formats and the underlying assumptions
- Determining the range and contents of the budgets.
- Approval of the annual budget estimates.
- Pricing decisions.
- Investment programmes.
- Appointment and training of management staff, and
- The competitive structure of the industry.

SECTION D: THE ORGANIZATIONAL GOALS. THIS SECTION TESTS HYPOTHESIS 4.

(Chief executives at the enterprise level and the government officials are required to answer the following questions).

1. What sort of achievement would make you feel that your company has had a very successful year and performance?
2. What is, in your opinion, the principal organizational goal of your company?
  - (i) Achievement of a satisfactory level of profits and increase them if possible.
  - (ii) Achievement of the goals of the economic and social development policies of the government (including providing social services, creation of job opportunities, rural development, reducing cost of living to the public, reaching self-sufficiency, import-substitution and saving hard currency, and development of the hotel and tourism industries.)

(iii) Achievement of a satisfactory level of profits and the goals of the economic and social development policies of the government, that is, (i) and (ii)

(iv) Others (including securing the company's market position and the requirements of raw materials and power supplies, and the development of the company's personnel.)

SECTION E. THE ORGANIZATION STRUCTURE. THIS SECTION TESTS HYPOTHESIS 5.

(Only chief executives are required to answer the questions of this section.)

1. Has your company got an organization chart?

- If yes,

- Could you please comment on it?

- How is your company organized department (or division) -wise?

- May I have a copy of it?

2. Is your company subordinated to an outside organization?

- If yes,

- Which organization?

- Is there a formal relationship between your company and this organization authority-wise? And if so, what sort of relationship is it?

- Could you please explain to me in detail the decision areas which you refer to this organization by virtue of this formal relationship?

SECTION F. THE ORGANIZATION SIZE. \* THIS SECTION TESTS HYPOTHESIS 6.

(Only chief executives are required to answer the questions in this section)

1. What is the total permanent workforce in your organization?
2. Have you got temporary employees? And if so, how many?

SECTION G. THE ORGANIZATION HISTORY. THIS SECTION TESTS HYPOTHESIS 7.

(Only the chief executives are required to answer the questions of this section)

1. How long has your company been established?
2. Has there been any change in the ownership of your company?
  - If yes,
    - What sort of change?
    - Do you think that this change has any impact on the role of management accounting and accountants in your company?  
And if so, what sort of impact?
3. Has your organization ever been managed by a consultancy firm on the basis of a management contract?
  - If yes,
    - For how long?
    - Was it a national or a foreign consultancy firm?
    - Do you think that this has any implications for the role of management accounting and accountants in your organization? And what implications?
4. Has your company ever employed any expatriate staff?
  - If yes,
    - In what position?
    - For how long?
    - Do you think that this has any implications for the

role of management accounting and accountants in  
your organization? And what implications?

SECTION H: MANAGEMENT EDUCATION BACKGROUND AND TRAINING.

THIS SECTION TESTS HYPOTHESIS 8

(Only chief executives are required to answer the questions  
of this section.)

1. Have you got a university qualification?
  - If yes, in what area of specialization?
2. Have you got any qualification in accounting or business  
administration/hotel management?
  - If yes, what qualification?
3. Does your company/hotel offer regular training courses for  
chief executives?
  - If yes, in what areas of specialization?
4. Have you attended any formal training in accounting or business  
administration/hotel management?
  - If yes,
    - Which training institutions offered these  
courses?
    - Was it offered at home or abroad?
    - How long did it last?
    - What was the topic(s) of the training course?
    - What qualifications (degree) have you got from  
the course?
    - Do you think that you benefitted from the training  
course? And if so, in what way?

SECTION I. MANAGEMENT ATTITUDES TOWARDS THE ROLE OF ACCOUNTING  
AND ACCOUNTANTS IN MANAGEMENT. THIS SECTION TESTS  
HYPOTHESIS 9.

(Only chief executives are required to answer the  
questions of this section.)

1. Do you consider the role of accounting data and the financial  
controllers in the management of your company as:
  - Essential
  - Very important
  - Important
  - Of minor importance, or
  - Of no importance.
2. In your opinion, how do you think accounting data and financial  
controllers could help you in the management of your organ-  
ization?
3. Is there a job description for the position of the financial  
controller in your company?
  - If yes,
    - May I have a copy of it?
    - Could you please comment on it?

APPENDIX B

THE GOVERNMENT FINANCIAL REGULATIONS

In accordance with the authority that is vested in it and in accordance with provision 14 (2) A of the Public Sector Corporations Act 1976, the Industrial Production Corporation (IPC) issues the following statute:

FINANCIAL STATUTE

CHAPTER 1

Definitions

1. The financial statute means the determination of authorities, responsibilities and functions of issuing or cancellation of financial orders or issuing of any procedures related to the financial affairs.

In this statute and unless the context indicates otherwise:

- A: Public Corporation means the Industrial Production Corporation (IPC).
- B: Corporation means the branch Corporation, and
- C: Production Unit means factory.

CHAPTER 2

AUTHORITIES AND RESPONSIBILITIES

1. Authorities:

- A. The board of directors of the public corporation has the right to amend, add to or omit any item or any part of the financial statute, and
- B. The board of directors of the public corporation has the right to issue procedures and illustrations which are obtainable from the statute.

2. Responsibilities:

- A. The boards of directors of the public corporation should, in accordance with this statute, practise its authorities and take the necessary measures for its execution, and



- B. Heads of the branch corporations and the general managers of the production units should commit themselves to the execution of this statute and any procedures obtained from it.

### CHAPTER 3

#### BUDGET, ACCOUNTS AND AUDITING

1. Financial year:

The fiscal year begins from the first day of July every year and ends on the 30th day of June of the next year.

2. Budgets:

- A. The contents of the budgets should be categorized according to the Budget Preparation Manual issued by the Ministry of Finance.
- B. Estimated budgets of the production units should be submitted to the heads of the branch corporations on or before the 30th day of April every year.
- C. Overall estimated budgets of the branch corporations should be submitted to the headquarters of the public corporation on or before the 31st day of May every year.
- D. The public corporation should uniform these collected budgets in their final form.

3. Accounts:

Every production unit, branch corporation and the public corporation should keep regular accounts and records for their operations.

They should also prepare statements, and use the double-entry book-keeping system in recording their transactions. These statements must be given the following classification:

1. Financial Accounts:

They include the group of statements which explain the results of operations and the financial position at the end of the financial year (i.e. P/L A/C's and B/S's), and

2. Cost Accounts:

They include a group of statements and analytical reports of expenses on a sound scientific basis which help modern management to realize better planning and control in order to reach full utilization of production capacity with minimum possible cost.

4. Budget Follow-up:

The heads of the financial departments and the general managers must follow-up and control the execution of the ratified estimated budgets during the financial year.

5. Internal Auditing:

Internal auditing is the responsibility of the public corporation and the branch corporations.

A. Duties of the Internal Auditor:

1. Auditing of the followed financial accounting system.
2. Auditing of the statements submitted by the financial department to the management in order to make sure of their correctness and should include financial accounts, estimated budgets, monthly statements and any cost information.
3. Ensuring the application of the financial and purchases statutes.
4. Ensuring the correctness of the expenses accrued by the unit or the branch corporation and that they are spent to reach the goal of the unit or the branch corporation and that they are part of the business nature of the unit or the branch corporation. Also to ensure that all revenues

have been obtained in accordance with the specified system mentioned in the statute and in accordance with the sound accounting principles.

5. Ensuring the existence of the properties in the custody and management of the unit and the branch corporation, and making sure that they are worth their book value when they are audited.
6. Checking books and documents concerning the unit or the branch corporation when deemed necessary for the internal auditor to perform his job from time to time, as he thinks appropriate.
7. Trying to uniform the financial accounting systems in the production units that have similar activities where it is possible.
8. Recommendation and direction to use the financial forms necessary to favour the kind of activity that the unit or the branch corporation performs.
9. Introduction of any recommendations or directions concerning the control and internal consistency seen necessary by the internal auditor to be followed in any unit or branch corporation.
10. Conducting any auditing of any accounting transactions as demanded by the head of the unit or the head of the corporation?
11. Facilitating the mission of the auditing team delegated from the Auditor General by introducing them to any statement or information obtained by the internal auditors.
12. The internal auditor should submit his audit report

results to the head of the branch corporation who in turn should raise it to the head of the public corporation, with a copy to the production unit manager.

13. Final accounts should be submitted after being closed to the general auditor within a period not less than 30th of September each year for auditing, and

14. Units and branch corporations must submit a copy of their audited accounts and a copy of the Auditor General report to the public corporation.

B. Rights of The Internal Auditor:

The Internal Auditor has the right to demand all documents and statements that he thinks necessary to perform his duty adequately, and if there is negligence in that duty, a report about the case should be submitted to the head of the branch corporation. He has also the right to get help from any employee that can assist him in performing his duty precisely. In the case of the existence of internal auditing departments in the branch corporations, this department should work in co-operation with the internal auditing department of the Industrial Production Corporation (IPC).

6. Cost Accounts:

1. Documentary Groups:

They are the notes and warrants that circulated according to a defined plan that is determined for the collection of statements in order to be registered in the regular cards and books.

## 2. Books Grouping:

This is the group of the analytical books as well as the costs ledger book and it includes:

- (a) Store ledger book for the issues, receipts and balance of raw materials.
- (b) The book for the monetary wages in the production and service centres.
- (c) The qualitative analytical book of expenses to determine the items of service requirements.
- (d) The employment analytical book of costs in order to fix the costs of the benefiting centres.
- (e) And the book of the operations costs to determine the cost of each individual order.

## 3. Specification of The Cost Centres:

The production unit is functionally divided as follows:

- (a) Production Centres: the production centres reflect the activity or the main objective of the unit and they include subdivision centres according to the lines of production or the complementary stages of individual machines or similar group of machines, etc.
- (b) Service Centres: They are the centres that serve and provide requirements to the production centres in order to enable them to perform.
- (c) Marketing Service Centres: They are the centres in which the marketing of the products takes place, such as advertising, exporting, and storing of the product.
- (d) Management Service Centres: They are the service centres of the financial, management and supervisory organs which are not included in other centres, and

- (e) Operating Capital Centres: They are the service centres for forming capital assets of the unit.

## 7. Sales:

The sales policy for the products of each branch corporation is determined by a committee consisting of:

- (a) The general manager of the branch corporation.
- (b) The commercial manager of the branch corporation.
- (c) The financial manager of the branch corporation.

The formulation of a sound planning policy of a firm, depends on a sound sales policy which secures the maintenance of public money against loss and also secures cash circulation to meet the different commitments. The sales policy should be planned in accordance with the quality of the commodity and intensity of competition of the market.

As for the products that do not face any competition in the market, they should be sold in cash. Commodities facing competition and in which sale needs time, bargaining should depend on clear and sound principles which include:

- (a) Specification of the period in which payment is to be made.
- (b) The necessary obtainable guarantees needed for the payment of the delayed sales value, and
- (c) The kinds of agents, their financial abilities and their trade goodwill.

## Determination of Prices:

The prices of commodities should be determined after adequate study of the actual costs of production and after reviewing prices in periodical terms and comparing them with their counterparts in the market. The determination and reviewing of prices in periodical

terms are necessary after taking into consideration the production cost and the prices of similar commodities in the market. The prices should be determined by a committee consisting of:

- (a) The General Director of the branch corporation.
- (b) The Head of the Cost Department in the branch corporation, if any.
- (c) The Commercial Manager of the branch corporation, and
- (d) The Financial Manager of the branch corporation.

8. Stores:

The stores and the process of their management have become one of the essential matters that should be given adequate care not only by providing operation requirements but also by controlling the processes of procurement and storage.

As for the process of procurement, it should be run by the purchases management in the unit as follows:

1. The concerned department should send a statement about the purchases it needs in accordance with the purchases statute and it is the purchases department which issues the purchase orders.
2. The concerned storekeeper should receive the goods after checking them when they arrive, together with the purchase order copy and record them in the goods received note.
3. The Accounts Department should receive and review the bill in comparison with the purchase order and a copy of the goods received note.
4. The storekeeper should list these items in terms of quantities on cards only.
5. The quantities and qualities of the received items

should be listed in the store ledger book which should be kept in the stores accounts.

6. As for the items requisition process, they should be requested by stores requisition and signed by the responsible manager of the department that demands these items and should be discounted from the bin card and from the book of the stores ledger (both quantity and value) in the stores accounts.

9. The Safe:

1. The cash should be kept in the authorized banks that work in the country, while the petty cash which is necessary for the work of the factory should be kept in its safe.
2. Every safe should have a reserve key which is kept in the Bank of Sudan or the province headquarters.
3. If the key is lost, the safe should be sealed and kept under custody immediately until its contents are emptied by a committee of two persons and the cashier. The safe should not be used again unless a new fastener is prepared with new keys or replaced.
4. Any cheque or bill should not be paid from the safe.
5. It is not admissible to keep any cash or properties not belonging to the unit.
6. If there is any deficit in the safe, the cashier will be asked for its payment within 48 hours. If he is unable to pay, the safe shall be taken from his keeping and the head of the branch corporation should be informed about the case in order to make immediate investigations.
7. If there are any extra balances in the safe, it should be added to the suspense account until the case of this extra cash balance is known. If it is not known within two years, it should



added to the public corporation accounts.

8. Inventory-taking and Inspection of the Safe:

(i) Time of closing the safe.

The safe should be closed at an appropriate time to enable the cashier to perform inventory-taking of the safe on a daily basis, which is 12.00 noon.

(ii) The inventory-taking of the safe:

The safe should be checked at least twice a month and the head of the accounts should take an inventory of the safe.

9. Petty Cash:

The petty cash should be in the care of the person (or persons) the financial controller feels is (are) responsible enough to undertake this job. The petty cash should be within favourable limits. Moreover, the financial controller should take the necessary measures to design a system by which he secures the safety and control of the petty cash.

CHAPTER 4

GENERAL RULES

1. Loans and credit facilities should be ratified by the head of the financial department.

2. Financial Commitments:

A. Requisition order.

- Before the issue of any document, it is necessary to obtain authorization of requisition from the financial manager or from his deputy and there should be no financial commitments without the knowledge of the financial department.
- The obtained document should be signed by the accountant who has issued the document and the head of the Accounts Department who has checked it.

- Cheques, bills and letters of credit should be signed by two persons, one of them should be the head of the financial department or his deputy.

3. Financial Rights:

- (i) Payment Facilities. To protect public money it is necessary for any unit that grants loans, facilities or advances to take adequate measures and guarantees that will enable it to recover this money by mortgage, insurance or any private document.
- (ii) Discount from the prices of the sale and distribution premiums is one of the authorities of the head of the unit, after consulting the head of the financial department.  
  
The latter should design and implement a sound system that ensures the collection of the accounts receivable.
- (iii) The cash and cheques should be received in accordance with a receipt to be issued by the head of the financial department, and
- (iv) Books and documents should be kept for a period of not less than five years.

APPENDIX C

WARRANT OF ESTABLISHMENT OF THE PUBLIC CORPORATION  
FOR THE TEXTILE INDUSTRIES, 1980

In the name of Allah, the compassionate, the merciful.

President of The Republic,

In accordance with the authorities that are vested in me, and  
in accordance with Article 4(1) of the Public Corporations Act  
1976, I hereby issue the warrant of the following text:

THE TITLE OF THE DECREE AND THE DATE OF ITS ENFORCEMENT

1. This Order is cited as warrant of establishment of the Public Corporation for the Textile Industries, 1980 and will come into force from the date of its signature.
2. In this decree and unless stated otherwise:
  - Act: is meant the Public Corporation Act of 1976.
  - Board: is meant the board of directors of the public corporation which is to be formed in accordance with Article 7 of the 1976 Act.
  - Minister: is meant the Minister of Industry.
  - Production Unit: is meant the factory or the project which is owned by the public corporation or by partnership with others.
  - Company: is meant any company, public or joint, that is subjected to the public corporation.
  - Corporation: is meant the Public Corporation for the Textile Industries, and
  - General Director: is meant the general director of the Public Corporation.

ESTABLISHMENT AND SUPERVISION OF THE CORPORATION AND ITS

PRODUCTION UNITS

1. A public corporation should be established and cited as the 'Public Corporation for the Textile Industries' under the supervision of the

Minister and its headquarters are to be based in Khartoum.

2. The following production units should be managed by the Corporation:

- (i) Sadaqa Textile Factory at El-Hassa Heisa (first textile company included in the research sample)
- (ii) Kosti Textile Factory (the second public textile company in the sample)
- (iii) Shendi Textile Factory.
- (iv) Kadogli Textile Factory.
- (v) Nyala Textile Factory.
- (iv) Mangala Textile Factory.
- (iiv) Abu Ni'ama Kenaf Project, and
- (iiiv) Any other production units that the Minister decides to be managed by the Corporation.

#### OBJECTIVES OF THE CORPORATION

The Corporation aims at realizing the following objectives:

1. Practice of its operations depending on its revenues and to develop an operation system that secures coverage of the Corporation's current expenses, liabilities, pensions, and to meet all its commitments from its revenues (revenues of its production units).
2. Administration of its production units with the right to have the help and advice of the national experts, and the national and foreign companies in accordance with the requirements of good administration.
3. Production and manufacturing of textile products either from natural or artificial materials. The Corporation should grow kenaf or any other agricultural products that are required for both crop-rotation and kenaf by-products.
4. Provision of raw materials required for production either by planting or importation.
5. Co-operation with the specialized government bodies to develop its production units in order to maximize their capacity as well as improving

the production quality.

6. Co-operation with the production units to determine specifications of raw materials and products in order to attain good quality of products.
7. Marketing of the textile products inside and outside the country.
8. Development, modernization and expansion of the established production units.
9. Co-operation with the concerned government bodies in the establishment and construction of the public sector factories for the purpose of making use of the by-products of the textile industries after the consent of the concerned government bodies.
10. Importation of machines, equipment and all needs of the textile industries.
11. Implementation of the modern techniques in the fields of management, costs, collection and analysis of data in co-ordination with the specialized government bodies (i.e. the Efficiency Improvement Unit for the Public Industrial Corporations), and
12. All other actions that are necessary to realize its objectives.

#### CORPORATION AUTHORITIES

The Corporation should practise the following authorities:

1. Establishment of a research and experiment centre concerned with the textile industries.
2. Ownership of a number of shares in a company of similar objectives through subscription or purchase.
3. Employment of whoever the Corporation sees necessary to help in carrying out its objectives.
4. Borrowing of money from banks and similar corporations in accordance with the principles decided by its Act.
5. Ownership and purchase, with the consent of the Minister, of Lands and

Estates on which it can construct buildings and establishments that are necessary to achieve its objectives.

6. Establishment of branch offices anywhere inside the Sudan, whenever there is a necessity. It also has the right to set up any offices outside the Sudan with the consent of the Minister.
7. Signing contracts and agreements whenever the Corporation sees it necessary to realize its goals in accordance with the financial rules that govern contracts and agreements.
8. Recruitment and preparation of the technical and administrative cadres who are capable of running the production units as well as participation in the modernization and establishment of new projects.

#### THE CAPITAL

The capital of the Corporation consists of the following items:

1. El Sadaqa textile factory at El Hassa Heissa, whose capital is LS 11,5000,000 as well as the capital of the other public textile factories subordinated to the Corporation as mentioned on page 519.

#### FORMATION OF THE BOARD OF DIRECTORS

Taking into consideration the regulations of Article 9(2) of the Corporation Act, the board of directors should consist of:

- A. Under-Secretary in the Ministry of Industry or his Deputy.
- B. Under-Secretary in the Ministry of Finance and National Economy or his Deputy..
- C. Under-Secretary in the Ministry of Public Service and Administrative Reform or his deputy.
- D. Two representatives for the Corporation workers to be appointed by the Minister.
- E. Three experienced members to be appointed by the Minister.

The appointed members should occupy their posts for three years, liable to renewal.

DUTIES OF THE MEMBERS OF THE BOARD OF DIRECTORS

1. Every member of the board should do his work with faithfulness.
2. It is not permissible for any member of the board of directors to put himself in a position where his own interests contradict those of the Corporation. The member is prohibited from:
  - (i) Practising any activity similar to that of the Corporation, endangering its competitive position.
  - (ii) Signing or facilitating any contracts or agreements with the Corporation for his own interests or the interests of one of his relatives including wife, relatives and sons-in-law.
  - (iii) Participating in any competition or recommendation wherein he or any member of his family (as mentioned in (ii)) has interests.
  - (iv) Making negotiations and decisions of the board without their authorization.
  - (v) Obtaining for himself any loan or credit facility from the Corporation or under its guarantee and these facilities should be null and void.

AUTHORITIES OF THE BOARD OF DIRECTORS

Taking into consideration the Rules of Article 10 of the Act, the board of Directors has the following authorities:

1. Setting-up plans and programmes in co-ordination with the specialized government bodies to establish modern projects as well as modernize and maintain their production units.
2. Taking measures that secure safety of the Corporation establishments.
3. The right to authorize the general director, any member of the board or any worker in the Corporation with any of their capacities with favourable terms, and
4. Issuing the necessary regulations, with the consent of the Minister, to organize the Corporation work, including the form and means of preparing the Corporation accounts as well as organization of stores,

management and purchase rules.

MEETINGS OF THE BOARD OF DIRECTORS

1. The board of directors should hold a meeting at least every month by invitation from the head or his deputy.
2. The Minister has the right to invite the board of directors for a meeting whenever he thinks it necessary or to call an extraordinary meeting at any time in accordance with the demand of the majority of members.
3. The quorum for the meeting should be half the members.
4. The board sessions should be secret and no deputization in the meeting or vote should take place.
5. The board of directors has the right to invite any person to attend any of its meetings on condition that the invited person should have no countable vote.
6. If the head is absent, the session should be led by the member determined by the regulations organizing the working of the board.
7. The decision of the board should be issued by the majority of votes of the attendants and if there is equality, the head shall have the casting vote.
8. The board has the right to appoint any special committee to be concerned with the study of any problem in order to make the relevant decisions to the board which should determine the capacities, terms and members of that committee.
9. The secretary of the board should record the minutes of meetings of the board, which should be signed by both the secretary and the head and submitted to the Minister.

AUTHORITIES OF THE GENERAL DIRECTOR

Taking into consideration the Rules of Article 13 of the Act, the general director of the Corporation has the following authorities:



1. To represent the Corporation in other quarters, national and international conferences.
2. To solve the problems of the production units.
3. To suggest programmes that concern the operation of the Corporation and submit them to the board of directors.
4. To prepare actions and matters that should be raised with the board of directors, and
5. To supervise the Corporation administration.

#### THE PRODUCTION UNITS

Every production unit has the right to practise its work under the auspices of its head whose responsibilities include:

1. Direct supervision of executing the approved budget of his unit and all actions necessary to maximize production.
2. Preparation of the budget estimates for each financial year and to submit them to the general director of the Corporation in order to discuss and authorize it by the board of directors, and then execute the budget.
3. Suggestions of the estimates of the development budget of his unit in order to raise them with the general director of the Corporation for authorization and execution by the board of directors, and
4. To head the 'Council of Production' in his unit in accordance with the regulations of the 'Council of Production' which are issued by the Corporation.

#### COUNCIL OF PRODUCTION

A Council of Production should be set up at the headquarters of the Corporation and include in its membership the general director of the Corporation as the head, and heads of the production units and the managers of the departments in the public Corporation. The Council of Production has the duties of executing the measures decided by the Minister.

FINANCE AND ACCOUNTS

Taking into consideration the Rules of Article 15 of the Act:

1. The Corporation has no right to enter into any obligations of foreign cash without the consent of the Minister, and
2. In the case of the contribution to the government, the Corporation should commit itself to the estimates decided by the Minister of Finance and National Economy, and the Corporation should redeem its debts from profits and capital interest rates after their authorization by the higher Council for Corporations and the Corporation has no freedom of action to spend them.

THE CORPORATION MONEY

1. Head and members of the board, as well as the workers of the Corporation, should maintain the Corporation money, and no-one has the right to transfer directly or indirectly the Corporation money to his own interest through:
  - A. Unauthorized spending on unauthorized purposes.
  - B. Non-observance in spending, or
  - C. Transfer of credits from one chapter or item to another in contrast to the Financial and Accounting Procedures Act of 1977.
2. The Corporation money and personnel are considered public in accordance with the penal code.

Issued under my signature in The People's Palace,  
December, 1980.

The President of The Republic.

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